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ABSTRACT

This manual gives teachers information about the score reports they receive after participating in the Tennessee Career Ladder evaluation process. It also contains a discussion of the scoring and equating process used to calculate the results. The score report consists of the following: (1) a summary; (2) results by domain; (3) results by competency; and (4) results by instrument. The manual aids the teacher in interpreting each of these categories of information. Raw scores and their meanings are described; the raw scores result from several types of evaluations: observation; dialogue; administration of peer, student, and principal questionnaires; administration of the Professional Skills Test; a professional development and leadership summary; and a consensus rating. Information is also provided about standard scores and their weights. Combining components to get total scores and comparing scores with performances from previous examinees are discussed. The Accelerated Career Development (ACD) program is reviewed to explain how candidates who missed qualifying by a narrow margin can have a second opportunity to qualify. Appendix A contains 29 pages of technical reference in five tables. Appendix B contains bubble weights and score indicators for the observation instrument, which is included, and Appendix C contains pattern scores for the observation instrument. Appendix D is a letter explaining the revised principal questionnaire, which is attached. (SLD)

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CAREER LADDER TECHNICAL MANUAL

A Guide to Interpreting Your Scores

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Teacher Edition

1986

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THE PURPOSE OF YOUR SCORE REPORT AND THIS MANUAL

After participating in the Career Ladder evaluation process, most teachers wish to know not only the level for which they qualified, but also how they performed in the various areas assessed. Your score report provides you with this information. It is organized to tell you the critical facts first: your total score, the level for which you qualified, and whether you are eligible to participate in the Accelerated Career Development (ACD) program. Then the score report lists each of your scores and the respective weight it contributed towards your total score. This manual gives you more descriptive information about your score report as well as a discussion of the scoring and equating process used to calculate your results.

HOW TO READ YOUR SCORE REPORT

SUMMARY PAGE

Your score report consists of the following pages: the cover, a summary page, a page labeled "Results by Domain," several pages labeled "Results by Competency," and then several more pages labeled "Results by Instrument." Turning first to the page labeled "Summary," you will see which evaluation system was used in your evaluation, your region of the state, the level you achieved, and the level for which you had applied. Underneath this identifying information is a summary of your Career Ladder evaluation results. The domains are listed together with the minimum requirements. Next to this you will see a column with the heading "Your Status." It shows the words "PASS" or "FAIL" to indicate whether or not you met each of the minimum evaluation requirements. Then your scores are listed, and the adjacent column shows the weights each domain score was given in your overall evaluation. Farthest to the right, your weighted domain scores are listed, and they sum to your total score (the one displayed in brackets: >>> score <<<). The total score is rounded to a whole number. If you are eligible to participate in the Accelerated Career Development (ACD) program, this is indicated in the upper right-hand corner of the summary page.

RESULTS BY DOMAIN

Your "Results by Domain" are on the second page of the report. The minimum qualifying score for each domain, 450, is displayed in the upper right-hand corner of the page.

(**Note:** To qualify for Levels II or III of the Career Ladder, you must have a minimum score of 450 in <u>each</u> of the domains.)

Each domain score is comprised of three weighted components: the first from multiple data sources, the second from the rating your principal gave you, and the third from the rating your evaluation team gave you (referred to as the "consensus rating"). Each of these components is expressed on an unweighted scale from 200-800.

As you look to the left side of the "Results by Domain" page, you will see each of the domains listed. <u>Across</u> the page are nine columns; they contain your scaled score from the data sources component followed by its weight, your score from the principal rating followed by its weight, your score on the consensus rating component followed by its weight, the total score for the domain followed by the weight applied to it, and the weighted domain total score. To get the domain totals, each component in the domain is multiplied by its weight and the results are summed. Each domain subtotal is then multiplied by its weight to get the weighted domain total. The weighted domain total scores are added to yield the total score shown in the lower right-hand portion of the page.

RESULTS BY COMPETENCY

Beginning with page three there is a series of pages labeled "Results by Competency," which detail every score that was used in the calculation of your Career Ladder evaluation results. All the scores in Domain I are listed according to their indicator letters (see pp. 9-17 in your Orientation Manual for a complete description of the indicators), then all the scores in Domain II by indicator letter, and so on. That is, in Domain I, all the scores for indicator A are listed, then all scores for indicator B, and so on until all the scores in Domain I have been reported. This pattern is followed in each domain.

Going <u>across</u> the page, the instrument which is the source of the score is specified, and the adjacent column shows the score number. This number is used by the Testing Center to keep track of these scores. A short verbal description of what was measured by that score is given. Continuing across, you can locate the raw score ranges and your raw score. A "raw" score is a score as it appears on the original instrument or, in the case of the observation, as encoded in the original tally. The raw score range shows you the highest and lowest value that a candidate could get for that raw score. Next to each raw score is its

equivalent standard score. The calculation of standard scores is explained in your Orientation Manual. In the next to the last column, the score weights applied to each standard score are shown. Finally, in the column farthest to the right, your weighted scores are listed. Each weighted standard score is the product of your standard score and its weight.

The sum of your weighted standard scores and the sum of the score weights (total weight) are reported on the next line. In order to arrive at the scaled score reported next, the total weighted standard score is divided by the total weight, and the result looked up in a table of values relating standard scores to scores on the unweighted 200-800 scale (scaled scores). The table used is included in this Manual beginning on page 43. The scaled score for the data sources in each domain is multiplied by its weight to obtain the weighted total shown. The process of constructing the tables is explained in your Orientation Manual.

The same structure is used to present the results from the second and third components of your domain score, the principal rating and the evaluator consensus rating. They are listed after all scores from the data sources. **The original metric for both of these components is the 200-800 scale, so they don't have equivalent standard scores.** That is why nothing is displayed in the standard score column for these two components.

Beneath the individual scores for each of the three components, at the right-hand margin of the score report, is the weighted score for the component. These three values are summed, so that the lower right-hand corner of the "Results by Competency" pages show the domain total and the domain weight that you first saw on the "Summary" page (p. 1) of your score report.

RESULTS BY INSTRUMENT

The final section of your score report is entitled "Results by Instrument." It displays exactly the same information as the pages labeled "Results by Competency," but for your convenience the scores are listed in instrument order. That is, all the scores from the observation instrument are listed first, then all the scores from the dialogue are shown, and so on.

The very last bit of information displayed on your score report is a list of **contact telephone numbers** for you to use should you wish to discuss your scores with someone. Regional Office staff will be available throughout the year to assist you in this regard.

YOUR RAW SCORES

The term "raw score" means that the score is in its original form, before calculations have occurred. The term "average" refers to the arithmetic averages of the raw scores: that is, the values of a set of scores for a particular score are added together, and this sum is divided by the number of scores added together. For example, a score from your student questionnaires is expressed as the average response over all of the students who responded to a particular item. "Standard deviation" refers to a statistic which indexes the variability, or spread, of scores around the mean raw score--in other words, it describes how closely the scores are bunched together. (You may want to refer to a book such as Twaite and Monroe, 1979, Introductory Statistics, for a more detailed explanation of the standard deviation.)

Table 1, beginning on p. 38, provides the following information for each score: the score number; the average raw score obtained by teachers being evaluated for the Career Ladder this year; the corresponding standard deviation; the range of lowest to highest values which the raw score could have; the constant used in calculating the standard score; and the weight that the score held in the calculation of your Career Ladder results. **Not all of the scores listed were used in your evaluation: some apply only to special education, some to vocational education, and so on.** (Table 5 starting on p. 63 contains a listing of exactly which score numbers were used in each evaluation system.)

You may be wondering about the score weights shown in Table 1. All of the scores used in Career Ladder evaluations are not weighted equally. This is because not all teacher and student behaviors are equally important; some of the teacher behaviors and skills assessed for Career Ladder were deemed more important--and therefore weighted more heavily--than others. The Certification Commission determined which parts of the Career Ladder evaluation should count more than others. That is the reason why, for example, the Teaching Strategies domain has more weight than the others, and why the classroom observation instrument accounts for 350 of the 1,000 total points in the evaluation system for general education teachers. Tables showing the distribution of weights are in your Orientation Manual. The weights for each score used in your evaluation will not necessarily sum to the exact point total shown in the Orientation Manual for all the data sources as there may be some scores missing. Missing scores are adjusted so as to neither help nor harm the candidate (see page 24).

OBSERVATION

At least twenty-six of the scores on your score report are derived from the classroom observation instrument. The bubbles that comprise each score are indicated on the observation instrument in Appendix B starting on p. 69. The scores come from one of the three sections of the observation booklet. Section 1 consists of a series of grids in which teacher and/or student behaviors occurring during a 4-minute scan are recorded. Section 2 consists of a series of questions which the evaluator marks at the end of each 4-minute scan. Section 3 consists of a series of 5-point ratings which the evaluator makes at the end of each observation. These five points are anchored on a 1 - 100 scale (5 = 100, 4 = 75, 3 = 50, 2 = 25, and 1 = 1).

Section 1 Scores

Scores derived from Section 1 are average percentages: the number of times something was marked divided by the number of times that it could have been marked. More specifically, the number of times each behavior was observed was multiplied by bubble weights (if any--see Appendix B, p. 69); these products were summed, and then divided by the number of times it was possible to code the behavior. For example, let's say the evaluators coded 20 instances of the teacher behavior of feedback over all six of your observations. (This is score T117 for those in general education.) All 20 teacher behaviors happened to have bubble weights of 1, like "Recognizes response," "Ignores response," or "Corrected assignments/tests." Additionally, all 9 scans in each of the six observation booklets were used, so that the feedback grid could have been marked a total of 54 times (6 observations times 9 scans per booklet). Your raw score for T117 would be calculated this way:

$$((20 \times 1) / (16 \times 54)) \times 100 = 2.3\%,$$

where 20 is the number of times the behavior was observed; 1 is the bubble weight for all of these behaviors; 16 is the sum of bubbles in the feedback grid times their weights (see Appendix B); and 54 is the number of completed observation booklet pages ("scans") with this grid.

Several scores are calculated differently from the others in Section 1. They are: T104, T113, T119, T132, and T141. These are what we call "pattern" scores, in that the bubbles for more than one grid is used to calculate each score. Scores T104 and T132 relate to procedural questions, T113 relates to academic questions and T119 and T141 relate

to the teacher control for cause and result. See Appendix C, p. 73 "Pattern Scores from the Observation Instrument," for a detailed explanation of how this was done.

Section 2 Scores

Scores from Section 2 also are average percentages. In this case, the frequency of each type of response is summed, multiplied by the respective response weights, and divided by the total number of responses times their weights.

Let's consider an example (score T118). Question 8 in Section 2 pertains to whether or not a teacher provided reasonable sanctions for inappropriate behavior. Assume that only two instances of inappropriate behavior had been observed in your room over all 6 hours of observation. One of these two times the evaluator coded "Yes," that you had provided a reasonable sanction; the other time a "No" was recorded. The rest of the time (the other 52 pages of observation booklets), "N/A" was marked. Your raw score would be calculated this way:

$$100 \times (\#\ \text{Yes}/(\#\ \text{Yes} + \#\ \text{No})) =$$

$$100 \times (1/(1 + 1)) = 50\%$$

This value would be printed across from the appropriate score number, in the column labeled "Your Raw Score," as 50.000.

Section 3 Scores

Scores from Section 3 are average ratings over all responses to the items (i.e., the six observations) for a given candidate, where the five points on the rating scale equal 100, 75, 50, 25, and 1. Using score T101 as an example, assume that your three evaluators had filled out the bubbles for 5, 4, 4, 3, 4, and 5 on the item, "Fosters higher level thinking skills." Remember, these ratings are really on a 1 - 100 scale, so the numbers to be averaged equal 100, 75, 75, 50, 75, and 100, respectively. Your raw score for T101 would be:

$$(100 + 75 + 75 + 50 + 75 + 100)/6 = 79.167$$

This value would be printed on the line for score T101, in the column labeled "Your Raw Score," as 79.167.

List of Observation Scores

The following is a list of scores, with a verbal description of what they measure, and the items included in them. Pattern scores are identified whenever they occur. Also, some scores apply only to persons in a particular evaluation system. For instance, score T128 is used only in the evaluation of vocational education teachers. All "specialized" scores like T128 are identified in parentheses just after the score number.

T101. Fosters higher level thinking. Section 3, Planning/Strategies/Management, Teacher fosters higher level thinking skills.

T102. Teacher preparation. Section 3, Planning/Strategies/Management, Teacher preparation.

T103. Teaches task and content appropriately. Section 1, Teacher behavior, Task and content.

T104. Students ask procedural questions. Section 1, Procedural questions. NOTE: This is a pattern score.

T105. Students exhibit understanding. Section 2, question 4: Did students express/exhibit lack of understanding?

T106. Provides correct information. Section 2, question 6: Did the teacher present correct information?

T107. Communicates effectively. Section 3, Teacher communication, Provides an appropriate language model for learners.

T108. Monitors learner understanding. Section 1, Teacher behavior, Monitors.

T109. Section 2, question 5: Did the teacher respond to this by reteaching? This was a field-test score only. It was not used in your evaluation.

T110. Paces activities appropriately. Section 3, Planning/Strategies/Management, Teacher attention to needs in order of importance, and Teacher pacing of activities to accommodate learner understanding.

T111. Provides practice and review. Section 1, Teacher behavior, Practice and review.

T112. Students initiate/respond to lesson. Section 1, Student initiates/responds, Task, content, review, practice, monitors, feedback, and other - procedure, other - presentation.

T113. Students ask academic questions. Section 1, Academic questions. NOTE: This is a pattern score.

T114. Students are on task. Section 2, question 1: Students on task. This is calculated as the average difference between the number of students in class and the number of students off task, as coded in the grid at the top of Section 2.

T115. Teacher involves nonvolunteers. Section 1, Teacher involves students who do not volunteer.

T116. Student preparation. Section 3, Planning/Strategies/Management, Student preparation.

T117. Provides academic feedback. Section 1, Teacher behavior, Feedback.

T118. Provides reasonable sanctions. Section 2, question 8: Did the teacher provide reasonable sanctions for inappropriate behavior?

T119. Maintains appropriate student behavior. Section 1, Teacher control, Cause and result. NOTE: This is a pattern score.

T120. This score was collapsed into T119, as a part of the pattern score.

T121. Positive classroom climate. Section 1, Positive affect (Task, content, review, practice, monitors, feedback, other) and Teacher behavior - other, greeting/socialization.

T122. Students treated without favoritism. Section 3, Favoritism.

T123. Maximizes available learning time. Section 1, Time elapsed between when the interruption ended and the class was back on task.

T124. Uses classroom resources effectively. Section 3, Use of resources.

T125. Uses classroom facilities effectively. Section 3, Facilities.

T126. Engages in classroom procedures. Section 1, Teacher behavior, Other - classroom procedure.

T127. Teacher behavior is on task. Section 1, Teacher behavior, Other - off-task.

T128. (Vocational education only.) Maintains safety/sanitation procedures. Section 2, question 7: Were there any safety/sanitation violations?

T129. (Vocational education only.) Relates program to jobs/organizations. Section 3, Vocational Education, Integrates student organization into class, and Relates program to job situations.

T130. (Vocational education only.) Fosters higher level thinking. Section 3, Planning/Strategies/Management, Teacher fosters higher level thinking skills. This score replaces T101 in the evaluation of vocational education teachers because it was given a different score weight.

T131. (Vocational education only.) Teaches task and content appropriately. Section 1, Teacher behavior, Task and content. This score replaces T103 because it was given a different weight in the evaluation of vocational education teachers.

T132. (Vocational education only.) Students ask procedural questions. Section 1, Procedural questions. NOTE: This is a pattern score. This score replaces T104 because it was given a different weight in the evaluation of vocational education teachers.

T133. (Vocational education only.) Students exhibit understanding. Section 2, question 4: Did students express/exhibit lack of understanding? This score replaces T105 because it had a different weight in the overall evaluation of vocational education teachers.

T134. (Vocational education only.) Provides correct information. Section 2, question 6: Did the teacher present correct information? This score replaces T106 in the evaluation of vocational education teachers because it was given a different weight.

T135. (Vocational education only.) Communicates effectively. Section 3, Teacher Communication, Provides an appropriate language model for learners. This score replaces T107 in the evaluation of vocational education teachers because it had a different weight.

T136. (Vocational education only.) Monitors learner understanding. Section 1, Teacher behavior, Monitors. This score replaces T108 in the evaluation of vocational education teachers because it had a different weight.

T137. (Vocational education only.) Section 2, question 5: Did the teacher respond to this by reteaching? This was a field-test score only. Note: It was not used in your evaluation.

T138. (Vocational education only.) Paces activities appropriately. Section 3, Planning/Strategies/Management. Teacher attention to needs in order of importance, and Teacher pacing of activities to accommodate learner understanding. This replaces score T110 because it was assigned a different weight for vocational education teachers.

T139. (Vocational education only.) Provides practice and review. Section 1, Teacher behavior, Practice and review. This replaces score T111 because it was assigned a different weight for evaluating vocational education teachers.

T140. (Special education and Chapter 1/ESL/VIP only.) Provides reasonable sanctions. Section 2, question 8: Did the teacher provide reasonable sanctions for inappropriate behavior? This replaces score T118 because it was given a different weight in the evaluation of special education and Chapter 1/ESL/VIP teachers.

T141. (Special education and Chapter 1/ESL/VIP only.) Maintains appropriate student behavior. Section 1, Teacher control, cause and result. NOTE: This is a pattern score. It replaces score T119 because it was assigned a different weight in the evaluation of special education and Chapter 1/ESL/VIP teachers.

T142. (Special education and Chapter 1/ESL/VIP only.) This was collapsed into score T141 as a part of the pattern score.

T143. (Special education and Chapter 1/ESL/VIP only.) Positive classroom climate. Section 1, Positive affect (Task, content, review, practice, monitors, feedback, other) and Teacher behavior - other, greeting/socialization. This score replaces T121 because it carried a different weight than that used for general education teachers.

T144. (Special education and Chapter 1/ESL/VIP only.) Students treated without favoritism. Section 3, Favoritism. This is the replacement for T122 because the score was given a different weight for special education and Chapter 1/ESL/VIP teachers.

T145. (Special education and Chapter 1/ESL/VIP only.) Uses classroom resources effectively. Section 3, Use of resources. This score replaces T124 because it had a different weight than that used in the general education evaluation system.

T146. (Special education and Chapter 1/ESL/VIP only.) Uses classroom facilities effectively. Section 3,

Facilities. This replaces score T125 because it was given a different weight than that used in the evaluation of general education teachers.

DIALOGUE

After meeting with the teacher and having a focused discussion about planning, teaching strategies, or evaluation, the evaluator assigned ratings (on a 1 - 5 scale) to a series of measurement statements keyed to particular competencies. The Dialogue instrument is shown on pp. 84-93 of your Orientation Manual. Your scores are the average ratings given on the specified items. Check Table 5 of Appendix A or your score report to determine which of these scores was used in your evaluation.

T201. Goals/objectives address the core curriculum. Planning focus, Items 1 through 4.

T202. Uses principles of effective instruction. Planning focus, Items 5 through 8.

T203. Plans accommodate student differences. Planning focus, Items 9 through 11.

T204. Describes learning task and content clearly. Teaching strategies focus, Items 1 through 5.

T205. Attends to learner needs and differences. Teaching strategies focus, Items 6 through 9.

T206. Provides for appropriate review and practice. Teaching strategies focus, Items 10 through 13.

T207. Creates and maintains learner involvement. Teaching strategies focus, Items 14 through 17.

T208. Uses assessment to improve teaching. Evaluation focus, Items 1 through 4, and 6.

T209. Monitors and reports student progress. Evaluation focus, Items 5, 7 and 8.

T210. Evaluation focus, Items 11 and 12. This was a field-test score which was not used in your evaluation.

T211. Supports learner achievement. Evaluation focus, Items 9 and 10.

T212. (Special education only.) Plans address IEP's and the core curriculum. Planning focus, Items 1 through 4. This score is used in lieu of T201 because characteristics

appropriate to special educators were utilized in rating the dialogue items.

T213. (Special education only.) Uses principles of effective instruction. Planning focus, Items 5 through 8. This replaces score T202 from the general education evaluation system.

T214. (Special education only.) Plans reflect student needs/differences. Planning focus, Items 9 through 11. This score replaces T203 in the evaluation of special education teachers.

T215. (Special education only.) IEP's use effective teaching strategies. Planning focus, Items 12 through 15.

T216. (Vocational education only.) Goals/objectives address core curriculum. Planning focus, Items 1 through 4. This score replaces T201 in the evaluation of vocational education teachers.

T217. (Vocational education only.) Uses principles of effective instruction. Planning focus, Items 5 through 10. This score replaces T202 in the evaluation of vocational education teachers.

T218. (Vocational education only.) Plans accommodate student differences. Planning focus, Items 11 through 13. This score is used in lieu of score T203 in the evaluation of vocational education teachers.

T219. (Vocational education only.) Enforces safety/sanitation procedures. Evaluation focus, Items 13 through 16.

PEER QUESTIONNAIRE

Three of the six colleagues whose names you submitted responded independently to this instrument. It consists of 16 items (18 for Special Populations) which are answered in terms of frequency, from "Rarely" to "Almost always." See pages 73-74 of the Orientation Manual for a copy of this instrument.

T301. Maintains a leadership role with others. Items 1 through 16.

T302. (Special education and Chapter 1/ESL/VIP only.) Maintains leadership role with others. Items 1 through 16. This score replaces score T301 in the evaluation of special education and Chapter 1/ESL/VIP teachers because it had a different score weight.

T303. (Special education and Chapter 1/ESL/VIP only.) Relates special programs to general education. Items 17 and 18.

STUDENT QUESTIONNAIRES

Three levels of student questionnaires were available: primary, elementary, and secondary. Only one level of student questionnaire was used in your evaluation--the elementary version, the secondary version, or the primary version, depending upon the age and/or comprehension level of the students you teach. The individual levels are described below.

Student Questionnaire - Elementary

The items on this instrument are shown on pp. 76-78 of your Orientation Manual. Students were asked to respond to each item on a 5-point scale, where "Almost never" = 1, "Sometimes" = 2, "About half the time" = 3, "Usually" = 4, and "Almost always" = 5. Nine scores are derived from the average responses of your students to the 34 items. Score order is reversed (i.e., "Almost never" = 5; "Almost always" = 1) for some items, as noted. Also, the Special Populations version of this questionnaire used a 3-point response scale ("Never" = 1, "Some of the time" = 2, "Almost always" = 3).

T501. Explains academic task to learner. Item 1.

T502. Paces instruction appropriately. Items 2, 3, 24, and 25 (items 24 and 25 scored in reverse order).

T503. Provides opportunity to review/practice. Items 6, 8, 9, 10, 11, 13, 14, and 22.

T504. Reinforces importance of schoolwork. Items 5 and 7.

T505. Assists learners through feedback. Items 12, 15, 16, and 17.

T506. Items 33 and 34. This was a field-test score, so it was not used in your evaluation.

T507. Manages learner behavior effectively. Items 18 through 21.

T508. Encourages achievement by all learners. Items 27 through 32 (item 32 scored in reverse order).

T509. Utilizes resources effectively. Items 4, 23, and 26.

T510. (Special populations instrument only.) Explains learning task/content. Item 1.

T511. (Special populations instrument only.) Adjusts pace according to student needs. Items 2, 3, 24, and 25 (items 24 and 25 scored in reverse order).

T512. (Special populations instrument only.) Learners engage in review and practice. Items 6, 8 through 11, 13, 14, and 22.

T513. (Special populations instrument only.) Encourages learner involvement. Items 5 and 7.

T514. (Special populations instrument only.) Assists by providing feedback. Items 12, 15, 16, and 17.

T515. (Special populations instrument only.) Items 33 and 34. This was a field-test score only, so it was not used in your evaluation.

T516. (Special populations instrument only.) Maintains appropriate student behavior. Items 18 through 21.

T517. (Special populations instrument only.) Encourages achievement by all learners. Items 27 through 32 (item 32 scored in reverse order).

T518. (Special populations instrument only.) Maximizes academic learning time. Items 4, 23, and 26.

Student Questionnaire - Secondary

Your students responded to 39 items on a 5-point scale, from "Rarely" = 1, "Sometimes" = 2, "About half the time" = 3, "Usually" = 4, to "Almost always" = 5. The items are shown on pp. 79-81 of the Teacher Orientation Manual. The ten scores derived from this instrument equal the average ratings your students marked on pertinent items. Again, the form used with Special Populations had a 3-point scale, from "Never" = 1, "Some of the time" = 2, to "Almost always" = 3.

T601. Explains academic task and content. Items 1 and 2.

T602. Paces instruction appropriately. Items 3, 30 and 31 (items 30 and 31 scored in reverse order).

T603. Encourages appropriate review/practice. Items 4, 9, 10, 12 through 15, and 28.

T604. Reinforces importance of schoolwork. Items 7 and 8.

T605. Assists learners through feedback. Items 11, 16 through 19, 22 and 23.

T606. Items 38 and 39. This was a field-test score that was not used in your evaluation.

T607. Manages learner behavior effectively. Items 21, 25 through 27.

T608. Encourages achievement by all learners. Items 20, 33 through 37 (item 37 scored in reverse order).

T609. Utilizes resources effectively. Items 5, 6, 24, 29, and 32 (item 24 scored in reverse order).

T610. (Vocational education only.) Plans for effective instruction. Items 40 through 42.

T611. (Vocational education only.) Manages learner behavior effectively. Items 21, 25 through 27. This score replaces T607 in the evaluation of vocational education teachers because it held a different score weight.

T612. (Vocational education only.) Encourages achievement by all learners. Items 20, 33 through 37 (item 37 scored in reverse order). This score is used in lieu of T608 in the evaluation of vocational education teachers.

T613. (Vocational education only.) Manages resources effectively. Items 5, 6, 24, 29, 32, 43, and 44 (item 24 scored in reverse order). This is used in lieu of score T609 in the evaluation of vocational education teachers because it was given a different score weight.

T614. (Vocational education only.) Liaison between school and community. Item 45.

T615. (Special populations instrument only.) Explains academic task and content. Items 1 and 2.

T616. (Special populations instrument only.) Paces instruction appropriately. Items 3, 30, and 31 (items 30 and 31 scored in reverse order).

T617. (Special populations instrument only.) Encourages appropriate review/practice. Items 4, 9, 10, 12 through 15, and 28.

T618. (Special populations instrument only.) Reinforces importance of schoolwork. Items 7 and 8.

T619. (Special populations instrument only.) Assists learners through feedback. Items 11, 16 through 19, 22, and 23.

T620. (Special populations instrument only.) Items 38 and 39. This was a field-test score. It was not used in your evaluation.

T621. (Special populations instrument only.) Maintains appropriate student behavior. Items 21, 25 through 27.

T622. (Special populations instrument only.) Encourages achievement by all learners. Items 20, 33 through 37 (item 37 scored in reverse order).

T623. (Special populations instrument only.) Utilizes resources effectively. Items 5, 6, 24, 29, and 32 (item 24 scored in reverse order).

Student Questionnaire - Primary

Your students responded to the nine items on this questionnaire by using a "sign" system established by the evaluator, for example, thumbs up to signify "agree," thumbs down to signify "disagree," and arms folded to indicate "can't say" or "don't know." The evaluator recorded the responses of each student. "Yes" was coded as "2" and "No" as "1." The yes/no responses were averaged for each of the three scores from this instrument (see page 75 of your Orientation Manual for a copy of the statements).

T701. Uses appropriate instructional strategies. Items 1, 2, and 5.

T702. Reports and monitors student progress. Items 3, 8, and 9.

T703. Effectively manages activities. Items 4, 6, and 7.

PROFESSIONAL SKILLS TEST

This part of the Tennessee Career Ladder Test consists of 100 multiple-choice items in four sections which correspond to the domains of Planning, Teaching Strategies, Evaluation, and Classroom Management. Each score equals the number of correct responses made out of 25 possible for the particular section. This instrument, unlike all the others, is not printed in your Orientation Manual. It is a secure test, by order of the Certification Commission. You may wish to examine your Study Guide to remind you of the types of items included on each portion of the test.

T801. Knowledge of planning. Items 1 through 25.

T802. Knowledge of teaching strategies. Items 26 through 50.

T803. Knowledge of evaluation. Items 51 through 75.

T804. Knowledge of classroom management. Items 76 through 100.

PROFESSIONAL DEVELOPMENT AND LEADERSHIP SUMMARY

Five categories of development activities and five categories of leadership activities were rated independently by two evaluators on a 5-point scale, from "unsatisfactory" (1), "below average" (2), "average" (3), "outstanding" (4), to "distinguished" (5). The two evaluators came to a consensus on each of the ten items. If a consensus could not be reached, a third evaluator was consulted. The ten items were broken down into two sets of five ratings to form two scores. As with the other instruments, scores which are specialized to particular types of teachers are identified as such in parentheses just after the score number.

T901. Enhances instruction with new techniques. Categories 1 through 5.

T902. Exhibits leadership to improve schooling. Categories 6 through 10.

T903. (Special education and Chapter 1/ESL/VIP only.) Enhances instruction with new techniques. Categories 1 through 5. This replaces score T901 in the evaluation of those teaching special populations because it carried a different score weight.

T904. (Special education and Chapter 1/ESL/VIP only.) Exhibits leadership to improve schooling. Categories 6 through 10. This replaces score T902 in the evaluation of teachers of special populations due to a different score weight.

T905. (Special education and Chapter 1/ESL/VIP only.) Communicates effectively with professionals, paraprofessionals, and parents. Category 11.

T906. (Vocational education only.) Enhances instruction with new techniques. Categories 1 through 5. This is used in lieu of score T901 in the evalution of vocational education teachers because it had a different score weight.

T907. (Vocational education only.) Exhibits leadership to improve schooling. Categories 6 through 10. This score replaces T902 in the evaluation of vocational education teachers because it had a different weight.

T908. (Vocational education only.) Serves as liaison with other groups. Category 12.

PRINCIPAL QUESTIONNAIRE

The scores from this instrument are listed last because they are not added in to all the other scores in the data sources component. This cannot be done because the scores on the Principal Questionnaire are not expressed as standard scores. Instead, your principal responded to the items on this instrument directly on the 200-800 scale (unlike the description given in the Orientation Manual, on pp. 82-83). A handout explaining the changes in the response scale was sent to your principal along with the instrument (see Appendix D for a copy). The weights assigned to the principal questionnaire have been "pulled out" of the data source weights reported in your Teacher Orientation Manual, and have been added back in as a separate component. This does not change the weight given to the principal questionnaire.

On the principal questionnaire three scores were used to judge indicators that were considered minimum competency. A passing value for each of these scores was a 450 or above. As with other screening sources (reading and writing), a pass was required to be awarded certification for the upper levels of Career Ladder.

T401. Goals/objectives tied to curriculum. Item 1.

T402. Plans for effective instruction. Item 2.

T403. Plans accommodate learner needs. Item 3.

T404. Communicates task and content effectively. Items 4 and 17.

T405. Adapts lesson for learner understanding. Item 5.

T406. Provides review and practice as needed. Item 6.

T407. Creates and maintains academic involvement. Item 7.

T408. Uses assessment to enhance teaching. Item 8.

T409. Reports progress to learners and parents. Item 9.

T410. Items 19 and 20. This was only a field-test score. It was not used in your evaluation.

T411. Maintains appropriate learner behavior. Item 10.

T412. Maintains climate conducive to learning. Item 11.

T413. Classroom resources used effectively. Item 12.

T414. Improves professional skills and knowledge. Item 13.

T415. Improves education via leadership role. Item 14.

T416. (Special education only.) Goals/objectives tied to curriculum. Item 1. This score replaces T401 in the evaluation of special education teachers because it had a different score weight.

T417. (Special education only.) Plans for effective instruction. Item 2. This score used in place of T402 because it had a different score weight.

T418. (Special education only.) Plans accommodate learner needs. Item 3. This score replaces T403 in the evaluation of special education teachers because it had a different score weight.

T419. (Special education only.) Integrates/ facilitates IEPs. Item 22.

T420. (Special education and Chapter 1/ESL/VIP only.) Communicates task/content effectively. Items 4 and 17. This replaces score T404 in the evaluation of teachers of special populations.

T421. (Special education and Chapter 1/ESL/VIP only.) Adapts lesson for learner understanding. Item 5. This score is used in lieu of T405 because it was given a different score weight.

T422. (Special education and Chapter 1/ESL/VIP only.) Provides review and practice as needed. Item 6. This score is used in lieu of T406 because of a different score weight.

T423. (Special education and Chapter 1/ESL/VIP only.) Creates/maintains academic involvement. Item 7. This

replaces score T407 in the evaluation of teachers of special populations.

T424. (Special education and Chapter 1/ESL/VIP only.) Uses assessment to enhance teaching. Item 8. This score replaces T408 in the evaluation of teachers of special populations.

T425. (Special education and Chapter 1/ESL/VIP only.) Reports progress to learners and parents. Item 9. This score is used instead of score T409 in the evaluation of teachers of special populations.

T426. (Special education and Chapter 1/ESL/VIP only.) Maintains appropriate learner behavior. Item 10. This replaces score T411 in the evaluations of teachers of special populations.

T427. (Special education and Chapter 1/ESL/VIP only.) Maintains climate conducive to learning. Item 11. This replaces score T412 in the evaluation of teachers of special populations.

T428. (Special education and Chapter 1/ESL/VIP only.) Classroom resources used effectively. Item 12. This score is used in lieu of score T413 in the evaluation of teachers of special populations.

T429. (Special education and Chapter 1/ESL/VIP only.) Improves education via leadership role. Item 14. This is the replacement for score T415 in the evaluation of teachers of special populations, due to a different score weight.

T430. (Special education and Chapter 1/ESL/VIP only.) Communicates effectively with others. Item 23.

T431. (Vocational education only.) Maintains appropriate learner behavior. Item 10. This score is used in place of T411 in the evaluation of vocational education teachers because the score was given a different weight in this system.

T432. (Vocational education only.) Maintains climate conducive to learning. Item 11. This score replaces T412 in the evaluation of vocational education teachers because it was given a different score weight in that evaluation system.

T433. (Vocational education only.) Classroom resources used effectively. Item 12. This is the replacement score for T413 in the evaluation of vocational education teachers because it was given a different weight.

T434. (Vocational education only.) Improves professional skills/knowledge. Item 13. This score replaces T414 in the evaluation of vocational education teachers.

T435. (Vocational education only.) Improves education via leadership role. Item 14. This score is used in lieu of T415 in the evaluation of vocational education teachers because it had a different score weight.

T436. (Vocational education only.) Liaison for home, school, community. Item 21.

CONSENSUS RATING

At the end of the evaluation process the A, B, and C evaluators for each candidate met to discuss their professional judgment of each candidate. This judgment was made for the domains of planning, teaching strategies, evaluation, and classroom management. A consensus judgment was not made in leadership. The rating was made on the same direct judgment scale used by the principals. See page 80 of Appendix D for this scale. The consensus judgment was given a weight of 25% for each of the four corresponding domains in which a judgment was made.

ABOUT STANDARD SCORES AND THEIR WEIGHTS

As the previous section explains, "raw score" data for Career Ladder evaluations are gathered on a variety of scales, e.g., 1 - 5, 200 - 800, 0 - 100. The only way to combine them accurately into a single, overall assessment is to express them all on a standard scale. "Standard scores" are used by test publishers and others to indicate several different kinds of scores. For Career Ladder purposes, standard scores are calculated as a z-score plus a constant.

Although the computer has already calculated and reported your standard scores for you, it is easy to do so yourself if you wish. First, you need to figure your z-scores. A z-score is the difference between your raw score and the average raw score attained by candidates on that measure, divided by the standard deviation of the score (a statistical index of how spread out or bunched up the candidates' scores were).

For example, assume that you had a raw score of 4.5 for a score from the peer questionnaire (e.g., T301). If the average raw score for all candidates on T301 was 4.0, and the standard deviation for T301 was 0.5, your z-score for T301 would be +1.0.

$$\frac{4.5 - 4.0}{.5} = 1.0$$

Your Orientation Manual explains that Career Ladder standard scores go from about -3 to +3. In the example above, a perfect score of 5 on the peer questionnaire score T301 would have a z-score equivalent of only +2 (because (5 - 4)/.5 = 2). For these cases, where a perfect raw score would have been below a +3 standard score, a constant was added to each candidate's score so that a perfect raw score would equal +3. In the example above, we would need to add +1 to each candidate's score so that a perfect raw score will equal a standard score of +3: ((5 - 4)/.5) + 1 = 3. Following from this, your score would then be a +2.

$$\frac{4.5 - 4.0}{.5} + 1 = 2.0$$

Table 1 (starting on p. 38) provides the average, standard deviation, and constant for every score. If you take your raw score and (a) subtract the appropriate average,
(b) divide by the standard deviation, and then (c) add the constant, you should get the standard score shown on your score report. If the constant shown is zero, then nothing needs to be added. Remember, the calculations must be done in this order, and your standard score may be either positive or negative. The negative sign means only that a score was below the statistical average, and nothing more or less. About half of all z-scores are negative, so you should not be at all surprised or concerned if some of your standard scores have negative signs.

STANDARD SCORES IN THE DATA SOURCES COMPONENT

The next steps in using your standard scores to calculate your Career Ladder evaluation results are to weight them correctly and to combine them to get the data sources component scaled score in each domain. As before, the computer has already calculated these for you but you can do so yourself if you wish. Here is the way to complete these steps: look at the three columns farthest to the right on the "Results by Competency" pages of your score report. They are labeled "Your Standard Score," "Score Weight," and "Weighted Standard Score." Multiply each standard score by the corresponding weight shown in the column next to it. This product should equal the weighted standard score shown in the last column.

For example, assume that you are a general education teacher who correctly answered 22 questions in the Planning section of the Professional Skills Test (T801). Your raw score is 22, and this is equivalent to a standard score of

1.919 (see Table 1 beginning on p. 38). The score weight is 16, so 1.919 X 16 equals the weighted standard score of 30.704. Now you need to add this weighted standard score to all of your other weighted standard scores. Then, take the sum of your weighted standard scores, and divide it by the sum of the weights applied to the data source scores.

Next, take the total weighted standard score and divide it by total weight giving you your AVERAGE STANDARD SCORE. The computer has done this for you (see the line of your score report which summarizes the results of your data sources component), but you may do this yourself by looking up the scaled score equivalent in Table 2 (beginning on p. 43). To use Table 2, go down the left side of the page until you locate your standard score. Then go across the page to the appropriate column for the domain (in our example, that would be the column for the planning domain in general education). The number you have located is the scaled score equivalent of your data sources standard score.

PRINCIPAL RATING AND CONSENSUS RATING COMPONENTS

These two components are reported separately on your score report because they are treated differently than the data sources. No standard scores are used. In particular, both of these components reflect professional judgments which are made directly on the 200-800 rating scale. The other data sources collect very specific bits of information on different scales--for example, how frequently certain activities or behaviors occur. They are not judgments made directly on the 200-800 scale. Therefore, conceptually as well as mathematically, it is unnecessary to express these scores as standard scores.

SPECIAL NOTES ABOUT WEIGHTS

Some issues need to be addressed before discussing how components are added to make domain totals, and how weighted domain totals are added to yield your total score. First is what happens when you are missing all the data for a particular score, and second is from where the domain weights came.

Adjusting Weights for Missing Data

Let's suppose that, for some reason, no data were available for a particular score. It wouldn't be fair if your evaluation results were calculated in a way that penalized you for not having any value for a particular score. Yet each score has a weight already assigned to it. What happens with the "unused" weight for a score with missing data?

Your scores are automatically adjusted for (i.e., neither helped nor hindered by) the missing data. For example, suppose you had no data for score T101 (a score from the Observation Instrument in Domain I). The weight assigned to this score is 26. The total weight for Domain I is 130 (150 minus 20 pulled out for the principal questionnaire). Instead of dividing your total weighted standard score by 130 to get your total standard score, it is divided by 104 (130 - 26) instead. This is the same procedure you might use with your students if, for example, a student was missing a score on a quiz. Suppose you gave five quizzes, each worth 20%. If a student missed one, you could add the scores on the other four and divide by 4/5 (or 80%) to get an average comparable to that for the other students. In this manner, the problem of having zeroes averaged in for the missing data is prevented, and your domain scores are neither inflated nor lowered by the missing scores.

There still may be some score weights that look different from what you were expecting. In some cases, a certain point value was assigned to a given indicator/instrument combination, but the points had to be partitioned among several scores (this was most likely to happen with the observation instrument). Here is an example: in the general education system there are five scores from the observations keyed to Domain II, Competency D. Fifty points are shown in the Orientation Manual as being allotted to this indicator/instrument combination. The points were split among the five scores as follows: 13, 13, 7, 10, and 7, respectively. This proportioning of points was not accomplished randomly. The Certification Commission approved the weights assigned to each score in Career Ladder evaluations as reflecting the relative importance of the areas assessed.

The consensus judgment of your team of evaluators counts 25% in each domain--except for Leadership, where no judgment is made by the evaluators--towards your Career Ladder evaluation. All the rest of your data (the data sources component and the principal rating component) contributes 75% of your overall evaluation. In the case of the Leadership domain, the data sources component accounts for 80% of the domain result, and the principal rating component 20%.

By setting the point allotment for each of the first four domains (as shown on p. 56 in your Manual) equal to 75%, simple proportions could be used to determine how much weight should go to the data sources component and how much should go to the principal rating component in Planning, Teaching Strategies, Evaluation, and Classroom Management.

Here is a numeric example: The principal rating in Domain I accounts for 20 of 150 points. The ratio to solve the correct percentage for the weight of the principal component is 20/150 = x/.75. Working through this algebraically, (20 X .75)/150 = .10, which you will see is the weight of the principal component in Planning. See Table 3 (beginning on p. 59) for the rest of the component weights.

Domain Weights

A small problem is caused when the component weights in each of the five domains sum to 1.00. Specifically, each domain has an equal weight (they all have component weights which sum to 1.00). Yet the Certification Commission specified that the domains should carry different weights in the overall evalution process: 150 points for Planning, 350 for Teaching Strategies, 150 for Evaluation, 250 for Classroom Management, and 150 for Leadership (out of 1000 points total). Therefore, the decimal values of these points must be applied to the domain totals before they can be combined into the total score. That is the source of the domain weights you first saw on the "Summary" page of your score report.

Given this understanding of how the weights are utilized, some attention can be given to the combination of the three components into your domain totals.

COMBINING COMPONENTS TO OBTAIN DOMAIN TOTALS

As noted above, three components (data sources, principal rating, and consensus rating) are weighted and then summed to yield your total score in each domain. The exception is Leadership, which consists of only two weighted components (data sources and principal rating). The weights for each of the components in all five domains are listed in Table 3 (beginning on p. 59). Using the Planning domain as an example, this is how you would weight and combine the components to obtain your domain total score.

1. Find your scaled score equivalent on the summary line for the data sources component in Planning. It appears in the first row of results on page 2 (Results by Domain) and also near the middle of page 3 of your score report. (If you have been calculating your scores all along, it is the number you found in Table 2 from your standard score.) Multiply the scaled score equivalent by the component weight shown in Table 3 as well as on the summary line for the data sources component. In the case of Planning, the weight is .65. Write the product of these two numbers on the line:

_____

2. Find your score for the principal component on the summary line for that component located about two-thirds of the way down page 3 in this example. Multiply the principal component score by its weight, also printed on the summary line. In the case of the Planning domain, the weight is .10. Write the product of these two numbers on the line:

_____

3. Find your score for the consensus rating component on the summary line for that component near the bottom of page 3 in our example. Multiply it by the consensus component weight of .25 (remember, the consensus rating component has a weight of .25 in every one of the four domains it occurs). Write the product here:

_____

4. Now sum the three products you just recorded on the lines above. The result should be your domain total score in Planning.

You may repeat these steps for each of the next three domains to calculate their totals.

Notice that the Leadership domain is different: it only has two components (no consensus ratings are made in this domain). As a result, the data sources component assumes 80% of the domain weight and the principal rating component has 20% of the weight, as per the weight table on page 56 of the Orientation Manual. Thus, in Domain V, only these two products are summed to yield the domain total.

GETTING TO YOUR TOTAL SCORE

Once you know your domain totals, you will want to be able to combine them to reach your total score on the 200-800 scale.

Simply multiply your domain score on the 200 - 800 scale by the weight for that domain (it is shown on the "Results by Domain" page of your score report). For example, Domain I has 150 points of 1000; therefore, the decimal value is 0.15. Repeat this step for each domain. Finally, sum the five products which you just calculated. The sum is your total 200-800 scaled score. This should match the score shown in brackets (>>> score <<<) on your "Summary" page.

HOLDING THE LINE

As your orientation manual explains (page 54), it is essential that the cutoff scores used to identify this year's Career Ladder teachers be the same as last year's. If the cutoff scores this year were easier, that wouldn't be fair to last year's candidates. If the cutoff scores were harder, that wouldn't be fair to this year's candidates.

Keeping the cutoff scores the same wouldn't be a problem if we were using exactly the same items and instruments this year as we did last year ("giving the same test"). We could just use the same cutoff scores. As you know, that is not the case. A number of improvements have been made in the Career Ladder evaluation system since last year. They were important and needed changes, and no one is sorry that they were made, but they do make assuring that the same cutoff scores are used a bit more complicated!

Of course, one way to make the cutoff scores appear to be the same would be to have the same percentage of candidates qualify this year as qualified last year. That would be the wrong thing to do for several reasons. The Career Ladder evaluation system was designed to be quota free. That means we cannot set standards based on how many individuals will (or will not) qualify. Perhaps more important, having the same percentage of individuals qualify does not assure that the cutoff scores were identically difficult. That is because we cannot assume that this year's candidates are exactly like last year's. If this year's candidates are better qualified than last year's, it would be unfair to this year's candidates if only the same percentage could qualify. If this year's candidates are less qualified than last year's, it would be unfair to last year's candidates to allow the same percentage to qualify.

This means that we cannot use either the same cutoff score or the same number of candidates qualifying to assure that our cutoff scores are the same. In order to accomplish our goal of equal cutoff scores not based on quotas, we have to use both kinds of information in a multiple-step process. These steps are explained in your Orientation Manual (pages 54-55). Since some people have expressed difficulty in following that explanation, another version is provided here.

Let's begin with a more familiar setting. As a teacher, you have created a test for your students. You used the test last year and you established certain cutoff scores on which to base your grading. Last year, this test had 20 items and you required a score of 15 to pass. If you wanted to reuse the test this year and keep the cutoff score

the same, you could give the same test and use the same cutoff score. That would certainly be fair.

But this year, you added 8 new items so you need to adjust your cutoff score for that. Now many teachers would handle this situation as follows:

> Last year, the cutoff was 15/20 = 75%
> This year, the cutoff should be = 75% too,
> so require 21 of the 28 items correct.

This would be the right answer if we could assume that the added items were no easier or harder than the original ones. But what if you added items which were easier than the old ones? Then the cutoff score also would be easier. If the new items were harder, then the cutoff scores would be harder as well.

How can you tell whether the new items are easier or harder than the old ones? If last year's students had taken the new items, we could compare how they did on the old and new items. If these same students were tested at the same time and did better on the old items than on the new ones, then the old items are easier than the new ones. If the same students did better on the new items than the old ones, then the old items are harder. But the old students have graduated, and aren't available to take the new items--and even if they were still here, they might have learned more or forgotten some. The new students may be better prepared or less well prepared than the old ones, so their scores reflect a combination of their own abilities and the items' difficulties which cannot be separated.

We do know, however, how the old students did on the old items. We also know how the new students did on the old items. If we score our new students on <u>only</u> the old items, we can find out how they compare to last year's class. If they get higher scores than last year's class on the same items (the old items), they are better prepared than last year's class. If they get lower scores, then they are less well prepared.

Before we knew whether this year's students were more or less able than last year's, we couldn't separate the difficulty of the new items from the ability of the new students. Now that we know the ability of the new students, we can adjust for that, and the rest of the differences will be due to the difficulty of the new items. This is how to check for such changes in difficulty.

1. Score the new students on <u>only</u> the old items and see how they perform in relation to the old cutoff score.

2. Rescore the new students on the entire test.

3. Set the new cutoff score so that the new students perform on the entire test in the same way that they performed on the old portion (the old cutoff score applied to only the old items, from step 1).

Notice that the cutoff score was based on how the new students performed on the old items. It didn't matter how many (or what percent) of the students passed last year, so there was no quota set. However, the cutoff score was set without considering the new items so that their difficulty (or easiness) did not affect how many passed. Of course, the new items did affect which students passed.

While the procedures used to carry the Career Ladder cutoff scores forward from last year to this year are a little more complicated than the example above, they follow the same general procedures. This year's candidates are scored on only the old items (those used last year) and we identify their performance with respect to last year's cutoff scores. Then we rescore this year's candidates on the full evaluation, including the new items, and set the standards to match the performance of the new candidates on all the items (the full evaluation) to their own performance on the old items. As before, the percent is based only on last year's cutoffs and items and is not related to how many (or few) passed last year. Also, how many candidates pass is based on last year's items only, while which candidates pass is based on all of the evaluation data.

Complications were caused by two changes in the system: (1) some items were dropped as well as added after last year, and (2) there were several ways to qualify for Career Level III last year. The first complication is analogous to you, as a teacher, deciding that in addition to adding 8 new items this year, you will drop four of the old ones.

Think about what dropping these four items does to the cutoff scores you used last year. Remembering that you required 15/20 (75%) correct, you could now require 12/16 correct (also 75%). As before, this would be fair only if you could assume that the items you dropped were exactly as difficult as the ones you kept. If the items you dropped were harder than those you kept, you would have made the cutoff score easier. If you dropped the easier items, you made the cutoff score harder.

How can you tell whether the items you dropped were easier or harder? Well, your students last year took both the items you kept and the ones you dropped, so you can see whether they did equally well on both groups of items. If they did better on the items you kept, then you dropped

harder items. If they did better on the items you dropped, then those items were easier and you have made the test harder. If they did equally well on both sets of items, you have not changed the difficulty of the test.

If you have not changed the difficulty of the test, there is no reason to change the cutoff score. If you have changed the difficulty level of the test by dropping items, however, you need to adjust the cutoff score to compensate. Of course you won't change it for last year's students. They were your "standard." You will need to adjust the cutoff for this year, so that dropping the items doesn't change the standard.

The easiest way to do this is to determine what cutoff score on the smaller number of items (i.e., after eliminating the items you plan to drop) would have given you the same results last year as you actually had with the full test. For example, assume that 30% of the students passed your actual cutoff score of 15/20 last year. Figure out what score on the 16 items being kept would have passed 30% of last year's students. This is the correct cutoff score to use, adjusted for dropping the items. If the items you dropped were some of the easiest ones, you might find that the equivalent cutoff score would be 11/16 because you had made the test harder. You could then pretend that you had used the shorter test with its equivalent cutoff score last year, and proceed just as discussed previously.

That is exactly what was done with the Career Ladder evaluation data. Last year's candidates were rescored using only the items to be kept this year. Then the cutoff score on that "shorter test" which would have kept the percent passing exactly the same was identified. That is, we adjusted to allow for the fact that the dropped items were not exactly equal in difficulty to those which were kept. That was done separately for each domain. Then we proceeded just as if we had given only the "shorter test" last year.

The other complication to be overcome was the multiple ways in which a candidate could make Career Level III last year. Remember that for Career Level III, a candidate had to pass only four of the five Career Ladder Level III cutoffs, as long as the score in the fifth domain was at least at the Level II cutoff. There were, then, five different patterns of cutoff scores. These patterns are as follows (the number in bold type is the Level II cutoff score).

DOMAIN CUTOFF SCORES

	PLANNING	TEACHING STRATEGIES	EVALUATION	CLASSROOM MANAGEMENT	LEADER-SHIP
Pattern					
1	7.75	5.75	6.25	6.25	**5.75**
2	7.75	5.75	6.25	**5.75**	6.50
3	7.75	5.75	**5.50**	6.25	6.50
4	7.75	**5.25**	6.25	6.25	6.50
5	**7.50**	5.75	6.25	6.25	6.50
AVERAGE	**7.70**	**5.65**	**6.10**	**6.15**	**6.35**

Notice that in each domain (e.g., reading each column of the table), four of the patterns include the Level III cutoff and one includes the Level II cutoff. The average pattern score achieved by those qualifying for Level III therefore is calculated as ((4 x Level III cutoff) + Level II cutoff)/5. (You can also calculate it by adding up the numbers in each column and dividing by 5. Try it and see!) This adjustment correctly lowers the cutoff score to compensate for the fact that one time out of five you could have made Level III with the Level II rather than the Level III cutoff score.

We have discussed a basic procedure and solutions to two "complications." The order in which the steps had to be taken does not match the order in which they have been discussed here, but the concepts are the same. Here is a summary of the steps in the order they were taken.

1. Adjust last year's Level III cutoff scores for the five ways of making Level III. Use Level II cutoff scores "as is."

2. Rescore last year's candidates using Level II and the adjusted Level III cutoff scores.

3. Determine the percentage of last year's candidates who scored above the Level II and adjusted Level III cutoff scores in each domain.

4. Rescore last year's candidates in each domain based on only those items which were retained for use this year (common items).

5. Establish cutoff scores on only the common items in each domain, based on the percentage of last year's candidates who attained the cutoff scores in that domain in last year's full evaluation.

6. Score this year's candidates on only the common items in each domain.

7. Determine the performance level of this year's candidates in each domain based only on the common items, using the cutoff scores established in step 5 above.

8. Rescore this year's candidates in each domain on the full evaluation. Apply the standards established in step 7 above.

ALL ABOUT ACD

The purpose of the Accelerated Career Development (ACD) program is to provide candidates who missed qualifying by a small amount a second opportunity to do so. Specifically, they can undertake particular career development activities and be reevaluated in one domain.

Last year, eligibility for this program was determined by looking at a candidate's results in each domain. If he or she missed the cutoff in one domain, but was within a predetermined limit from that cutoff, then the candidate could be reevaluated in the domain.

This year, the shifts to domain minimum requirements (450 in each) and one total score required that changes be made in the method used to calculate ACD eligibility. However, comparability to the 1984-85 system has been maintained. Let's review the method used to determine ACD eligibility this year.

The first step in calculating this year's ACD cutoff scores is to adjust for the many ways a candidate could qualify for ACD. For example, on a domain-by-domain basis parallel to last year, there are five ways a Level II applicant may be eligible for participation in ACD to achieve Level II. The candidate could have made the Level II cutoff score in any four domains, and the Level II ACD cutoff score in the fifth. (This is why we cannot simply average the ACD domain cutoffs from last year: candidates were not permitted to score at the ACD cutoff in all five domains--only in one of them.) These patterns are as follows (the number in **bold** type is the ACD cutoff).

	DOMAIN				
	Planning	Teaching Strategies	Evaluation	Classroom Management	Leader-ship
Pattern					
1	7.50	5.25	5.50	5.75	**5.37**
2	7.50	5.25	5.50	**5.37**	5.75
3	7.50	5.25	**5.13**	5.75	5.75
4	7.50	**4.90**	5.50	5.75	5.75
5	**7.00**	5.25	5.50	5.75	5.75
AVERAGE	**7.40**	**5.18**	**5.426**	**5.674**	**5.674**

Notice that in each domain (e.g., reading each column of the table), four of the patterns include the Level II cutoff and one includes the ACD cutoff score. The average pattern score achieved by those eligible for ACD is calculated as ((4 x Level II cutoff) + Level II ACD cutoff)/5. You can also calculate it by adding the numbers in each column and dividing by 5. This calculation can be repeated for each domain to get Level II ACD cutoffs that are adjusted for the many ways a candidate could have qualified.

Adjusting the Level III ACD cutoff scores is more complicated because there were more ways for Level III applicants to become eligible for participation in ACD. Of the various ways a candidate could achieve ACD eligibility for Level III, the lowest scores would be associated with a pattern of three scores at the Level III cutoff, one at the Level II cutoff, and one at the Level III ACD cutoff score. There are 20 patterns of this type. The pattern averages are calculated in the same manner as for Level II. The formula is ((3 x Level III cutoff) + Level II cutoff + Level III ACD cutoff)/5. You can also write out all of the patterns, add up the columns and divide by 20. If you did so, you would see that the adjusted Level III ACD cutoffs are: Planning - 7.60; Teaching Strategies - 5.58; Evaluation - 6.026; Classroom Management - 6.074; and, Leadership - 6.074. The adjusted Level II and Level III ACD cutoffs are reported in Table 4 on page 61.

The next step in defining this year's ACD cutoff scores is to put them onto the 200 - 800 scale. Fortunately, the process of equating 1984-85 cutoff scores to the 1985-86 system (described in the previous section) results in a complete equating for each domain. In other words, for each point of the 1984-85 scores in a domain, there is an equivalent point on the 200 - 800 scale in the comparable 1985-86 domain. Because the adjusted ACD cutoff scores are scores on the 1984-85 domains, we already know their equivalents for 1985-86. These are provided in Table 4.

Each of the domain scores is multiplied by the respective domain weight (the same ones used to calculate total scores for candidates) to arrive at Level II and Level III ACD cutoff scores based on the total score (calculations are shown in Table 4).

These still aren't the scores we can use as cutoffs, however. Since Career Ladder qualification this year is based on meeting domain minimum requirements and meeting a Career Ladder II or III cutoff score (600 or 700) for the total, ACD eligibility is based on meeting the domain minimum requirements and exceeding the ACD Level II or Level III cutoff scores for the total. In fairness to candidates, each ACD-eligible candidate's scores are then analyzed to be sure that there is at least one domain with a sufficiently high score for the candidate to be able to attain the next higher Career Ladder Level. This analysis is conducted as part of the determination of the domain in which the candidate should work.

Determination of the domain in which an ACD candidate should work is somewhat more complicated than last year, so the computer has been programmed to calculate that for you. Should you wish to do so yourself, however, the following example illustrates the process. The example is shown on the next page.

Step 1. Determine how many additional points are needed to bring you to the next higher Career Ladder Level by subtracting your current total score from the cutoff score for that Level.

Step 2. For each domain, calculate how many points it would be possible for you to get, if you had the highest possible score (800). You do not need to calculate this for yourself, however, as it is the same for everyone--it is based only on the perfect score of 800 and the domain weights.

Step 3. Using your own domain total scores and the domain weights, calculate the contribution of each domain to your total score. You do not need to calculate this either if you have your score report. It is in the last column on page 2, "Weighted Domain Total."

Step 4. For each domain, subtract the number you got in Step 3 from the number you got in Step 2. The difference equals the number of additional points that you could obtain if you raised your score from where it is now to 800.

Step 5. Analyze your results. First, look to be sure that at least one domain has a difference in Step 4 which is at least as great as the points you need (from Step 1). If not, ACD cannot help you and you need to consider full

reevaluation so that you will be able to work on more than just one domain. If at least one domain has a difference large enough for you to work in, you should work in the domain with the largest difference.

You may wish to calculate how much you would need to improve your scores in order to qualify. Simply add the points you need to the "Actual Score Contribution" for the domain you have selected, and then divide by the weight for that domain. This will give you the score you need to attain.

ACD Domain Identification

Example

Step 1. Required score gain (based on total score)

(a)	Score required for Level III	700
(b)	Candidate's score	-678
(c)	Difference = required score gain	22

Step 2. Maximum score contribution by domain (same for all teachers)

Domain	Maximum Score	Score Weight	Maximum Score Contribution
Planning	800	.15	120
Strategies	800	.35	280
Evaluation	800	.15	120
Management	800	.25	200
Leadership	800	.10	80

Step 3. Candidate's score contribution by domain

Domain	Candidate's Score	Score Weight	Actual Score Contribution
Planning	600	.15	90
Strategies	720	.35	252
Evaluation	660	.15	99
Management	660	.25	165
Leadership	720	.10	72

Step 4. Analysis of difference

Domain	Maximum Contribution	Actual Score Contribution	Difference
Planning	120	90	30
Strategies	280	252	28
Evaluation	120	99	21
Management	200	165	35
Leadership	80	72	8
TOTAL	800	678	122

Step 5. Results

(a) Since at least one difference exceeds the required score gain of 50, the candidate remains ACD eligible.

(b) The candidate should work in Domain IV because it has the largest point difference.

APPENDIX A

TECHNICAL REFERENCE TABLES

APPENDIX B

BUBBLE WEIGHTS AND SCORE INDICATORS FOR THE OBSERVATION INSTRUMENT

APPENDIX A

TECHNICAL REFERENCE TABLES

Table 1. Averages, Standard Deviations, Ranges, Constants, and Weights by Score Number

OBSERVATION

Score #	Average	Standard Deviation	Range	Constant	Weight
T101	66.383	13.993	1 - 100	.597	26.00
T102	81.678	13.022	1 - 100	1.593	14.00
T103	12.432	4.376	0 - 100	.000	17.00
T104	77.841	18.423	0 - 100	1.797	7.00
T105	89.601	6.962	0 - 100	1.506	4.00
T106	99.850	.841	0 - 100	2.821	4.00
T107	95.439	6.955	1 - 100	2.344	2.00
T108	20.856	6.259	0 - 100	.000	17.00
T109	93.774	.795	0 - 100	.000	8.50
T110	75.929	12.783	1 - 100	1.117	8.50
T111	10.475	3.859	0 - 100	.000	32.00
T112	9.907	2.241	0 - 100	.000	13.00
T113	69.984	21.850	0 - 100	1.626	13.00
T114	99.977	.225	0 - 100	2.901	7.00
T115	62.935	18.404	0 - 100	.986	10.00
T116	72.409	12.772	1 - 100	.839	7.00
T117	21.071	6.147	0 - 100	.000	40.00
T118	87.161	24.253	0 - 100	2.470	12.00
T119	99.456	1.109	0 - 100	2.510	36.00
T121	1.616	.946	0 - 100	.000	32.00
T122	99.986	.478	0 - 100	2.971	16.00
T123	99.899	.160	0 - 100	2.375	5.00
T124	73.051	11.797	1 - 100	.715	10.00
T125	72.849	13.237	1 - 100	.948	4.00
T126	88.878	10.094	0 - 100	1.898	2.50
T127	99.556	1.474	0 - 100	2.698	2.50
T128	97.861	8.453	0 - 100	2.747	10.00
T129	63.278	16.158	1 - 100	.727	4.00
T130	62.702	13.004	1 - 100	.131	22.00
T131	11.056	4.609	0 - 100	.000	16.00
T132	88.163	14.946	0 - 100	2.208	7.00
T133	88.079	8.006	0 - 100	1.511	3.00
T134	99.890	.553	0 - 100	2.802	4.00
T135	91.049	7.985	1 - 100	1.879	2.00
T136	21.535	6.868	0 - 100	.000	16.00
T137	93.687	.775	0 - 100	.000	8.00
T138	72.723	11.096	1 - 100	.541	8.00
T139	8.461	3.351	0 - 100	.000	36.00
T140	91.925	19.990	0 - 100	2.596	20.00
T141	99.308	1.280	0 - 100	2.459	32.00
T143	1.426	.763	0 - 100	.000	36.00
T144	100.000	.000	0 - 100	3.000	16.00
T145	73.888	11.785	1 - 100	.784	11.00
T146	73.705	13.739	1 - 100	1.086	5.00

Table 1, continued

DIALOGUE

Score #	Average	Standard Deviation	Range	Constant	Weight
T201	3.889	.712	1 - 5	1.440	32.00
T202	3.887	.720	1 - 5	1.455	24.00
T203	3.584	.796	1 - 5	1.222	18.00
T204	3.952	.597	1 - 5	1.246	28.00
T205	3.709	.696	1 - 5	1.146	28.00
T206	3.795	.685	1 - 5	1.242	28.00
T207	3.834	.694	1 - 5	1.322	16.00
T208	3.698	.760	1 - 5	1.289	32.00
T209	3.724	.775	1 - 5	1.354	22.00
T210	3.181	.908	1 - 5	.999	.00
T211	3.544	.809	1 - 5	1.201	10.00
T212	3.819	.802	1 - 5	1.528	20.00
T213	3.924	.763	1 - 5	1.591	19.00
T214	3.906	.809	1 - 5	1.648	12.00
T215	3.745	.819	1 - 5	1.468	23.00
T216	3.730	.618	1 - 5	.947	26.00
T217	3.711	.628	1 - 5	.949	20.00
T218	3.399	.748	1 - 5	.862	14.00
T219	3.625	.739	1 - 5	1.139	10.00

PEER QUESTIONNAIRE

Score #	Average	Standard Deviation	Range	Constant	Weight
T301	4.797	.261	1 - 5	2.226	30.00
T302	4.760	.284	1 - 5	2.156	17.00
T303	4.890	.243	1 - 5	2.549	8.00

Table 1, continued

PRINCIPAL QUESTIONNAIRE

Score # Weight	Average*	Standard* Deviation	Range	Constant*
T401			200 - 800	10.00
T402			200 - 800	6.00
T403			200 - 800	4.00
T404			200 - 800	6.00
T405			200 - 800	6.00
T406			200 - 800	4.00
T407			200 - 800	4.00
T408			200 - 800	12.00
T409			200 - 800	8.00
T410			200 - 800	.00
T411			200 - 800	14.00
T412			200 - 800	14.00
T413			200 - 800	12.00
T414			200 - 800	8.00
T415			200 - 800	12.00
T416			200 - 800	4.00
T417			200 - 800	4.00
T418			200 - 800	5.00
T419			200 - 800	7.00
T420			200 - 800	9.00
T421			200 - 800	9.00
T422			200 - 800	8.00
T423			200 - 800	8.00
T424			200 - 800	14.00
T425			200 - 800	10.00
T426			200 - 800	20.00
T427			200 - 800	20.00
T428			200 - 800	18.00
T429			200 - 800	10.00
T430			200 - 800	7.00
T431			200 - 800	10.00
T432			200 - 800	10.00
T433			200 - 800	10.00
T434			200 - 800	6.00
T435			200 - 800	6.00
T436			200 - 800	8.00
T437			200 - 800	.00
T438			200 - 800	.00
T439			200 - 800	.00

*No standard score transformations were made to the Principal Questionnaire, because ratings were made directly on the 200-800 scale.

Table 1, continued

STUDENT QUESTIONNAIRE
ELEMENTARY

Score #	Average	Standard Deviation	Range	Constant	Weight
T501	4.655	.300	1 - 5	1.851	10.00
T502	4.366	.322	1 - 5	1.034	10.00
T503	3.882	.460	1 - 5	.570	12.00
T504	4.281	.363	1 - 5	1.025	12.00
T505	3.917	.468	1 - 5	.689	20.00
T506	4.580	.339	1 - 5	1.765	0.00
T507	4.395	.342	1 - 5	1.233	18.00
T508	4.440	.314	1 - 5	1.219	22.00
T509	4.431	.365	1 - 5	1.443	14.00
T510	2.864	.179	1 - 3	2.240	7.00
T511	2.662	.172	1 - 3	1.041	7.00
T512	2.420	.249	1 - 3	.681	8.00
T513	2.695	.238	1 - 3	1.723	8.00
T514	2.506	.264	1 - 3	1.131	16.00
T515	2.810	.178	1 - 3	1.938	.00
T516	2.749	.212	1 - 3	1.819	9.00
T517	2.262	.176	1 - 3	.000	10.00
T518	2.619	.236	1 - 3	1.390	7.00

STUDENT QUESTIONNAIRE
SECONDARY

Score #	Average	Standard Deviation	Range	Constant	Weight
T601	4.572	.348	1 - 5	1.771	10.00
T602	4.516	.284	1 - 5	1.296	10.00
T603	3.779	.448	1 - 5	.276	12.00
T604	4.150	.408	1 - 5	.918	12.00
T605	3.774	.468	1 - 5	.384	20.00
T606	4.371	.414	1 - 5	1.484	.00
T607	3.949	.353	1 - 5	.028	18.00
T608	4.406	.344	1 - 5	1.274	22.00
T609	4.588	.266	1 - 5	1.455	14.00
T610	4.367	.429	1 - 5	1.526	14.00
T611	4.049	.385	1 - 5	.531	14.00
T612	4.417	.374	1 - 5	1.444	16.00
T613	4.539	.301	1 - 5	1.475	14.00
T614	3.709	.860	1 - 5	1.498	10.00
T615	2.858	.124	1 - 3	1.865	7.00
T616	2.666	.167	1 - 3	1.007	7.00
T617	2.419	.173	1 - 3	.000	8.00
T618	2.663	.157	1 - 3	.857	8.00
T619	2.499	.202	1 - 3	.527	16.00
T620	2.828	.154	1 - 3	1.892	.00
T621	2.629	.161	1 - 3	.703	9.00
T622	2.225	.098	1 - 3	.000	10.00
T623	2.737	.146	1 - 3	1.206	7.00

Table 1, continued

K - 2 QUESTIONNAIRE

Score #	Average	Standard Deviation	Range	Constant	Weight
T701	1.971	.040	1 - 2	2.288	44.00
T702	1.950	.062	1 - 2	2.202	20.00
T703	1.984	.029	1 - 2	2.464	54.00

PROFESSIONAL SKILLS TEST

Score #	Average	Standard Deviation	Range	Constant	Weight
T801	20.534	2.775	0 - 25	1.391	16.00
T802	19.671	2.439	0 - 25	.816	36.00
T803	16.861	3.233	0 - 25	.483	16.00
T804	21.077	2.665	0 - 25	1.528	26.00

PROFESSIONAL DEVELOPMENT AND LEADERSHIP SUMMARY

Score #	Average	Standard Deviation	Range	Constant	Weight
T901	3.118	.677	1 - 5	.223	24.00
T902	2.915	.681	1 - 5	.000	26.00
T903	3.099	.563	1 - 5	.000	16.00
T904	2.948	.627	1 - 5	.000	18.00
T905	2.966	.956	1 - 5	.872	16.00
T906	3.042	.650	1 - 5	.000	10.00
T907	2.782	.644	1 - 5	.000	20.00
T908	2.562	1.202	1 - 5	.972	10.00

Table 2. Translation Table for Data Sources' Weighted Average Standard Score to the 200 - 800 Scaled Score

AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
-3.00	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200	200
-2.99	201	201	201	201	201	201	201	201	201	201	201	201	201	201	201	201	201	201	201	201
-2.98	201	202	202	201	202	201	202	202	201	202	202	202	202	201	203	202	201	202	201	202
-2.97	202	202	203	202	204	202	202	203	202	204	202	202	203	202	204	202	202	203	202	203
-2.96	203	203	204	203	205	203	203	204	203	205	203	203	204	203	206	203	203	204	203	204
-2.95	204	204	205	203	206	203	204	205	203	206	204	204	205	203	207	204	204	205	203	205
-2.94	204	205	206	204	207	204	205	206	204	207	205	205	206	204	209	205	204	206	204	206
-2.93	205	206	207	205	208	205	206	208	205	208	205	206	207	205	210	205	205	207	205	208
-2.92	206	206	208	205	210	206	206	209	205	209	206	207	207	205	211	206	206	208	205	209
-2.91	207	207	209	206	211	206	207	210	206	211	207	207	208	206	213	207	207	209	206	210
-2.90	207	208	209	207	212	207	208	211	207	212	208	208	209	206	214	208	207	210	206	211
-2.89	208	209	210	207	213	208	209	212	207	213	208	209	210	207	216	209	208	211	207	212
-2.88	209	210	211	208	214	208	209	213	208	214	209	210	211	208	217	209	209	211	208	213
-2.87	210	210	212	209	215	209	210	214	209	215	210	211	212	208	218	210	210	212	208	214
-2.86	210	211	213	209	217	210	211	215	209	217	211	211	213	209	220	211	210	213	209	215
-2.85	211	212	214	210	218	210	212	216	210	218	211	212	214	210	221	212	211	214	210	216
-2.84	212	213	215	211	219	211	213	217	211	219	212	213	215	210	223	213	212	215	210	217
-2.83	212	214	216	211	220	212	213	218	211	220	213	214	216	211	224	213	213	216	211	218
-2.82	213	214	217	212	221	212	214	219	212	221	214	215	217	212	226	214	213	217	212	219
-2.81	214	215	218	213	223	213	215	220	213	223	214	216	218	212	227	215	214	218	212	220
-2.80	215	216	219	213	224	214	216	222	213	224	215	216	219	213	228	216	215	219	213	221
-2.79	215	217	220	214	225	215	217	223	214	225	216	217	220	214	230	216	216	220	214	223
-2.78	216	218	221	215	226	215	217	224	215	226	217	218	221	214	231	217	216	221	214	224
-2.77	217	218	222	215	227	216	218	225	215	227	217	219	221	215	233	218	217	222	215	225
-2.76	218	219	223	216	229	217	219	226	216	228	218	220	222	216	234	219	218	223	216	226
-2.75	218	220	224	217	230	217	220	227	217	230	219	220	223	216	236	220	219	224	216	227
-2.74	219	221	225	217	231	218	221	228	218	231	220	221	224	217	237	220	219	225	217	228
-2.73	220	222	226	218	232	219	221	229	218	232	221	222	225	217	238	221	220	226	217	229
-2.72	220	222	227	219	233	219	222	230	219	233	221	223	226	218	240	222	221	227	218	230
-2.71	221	223	227	219	235	220	223	231	220	234	222	224	227	219	241	223	222	228	219	231
-2.70	222	224	228	220	236	221	224	232	220	236	223	225	228	219	243	224	222	229	219	232
-2.69	223	225	229	221	237	222	224	233	221	237	224	225	229	220	244	224	223	230	220	233
-2.68	223	226	230	221	238	222	225	234	222	238	224	226	230	221	245	225	224	231	221	234
-2.67	224	226	231	222	239	223	226	236	222	239	225	227	231	221	247	226	225	232	221	235
-2.66	225	227	232	223	240	224	227	237	223	240	226	228	232	222	248	227	225	233	222	236

AVERAGE STANDARL SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
-2.65	226	228	233	223	242	224	228	238	224	241	227	229	233	223	250	227	226	234	223	238
-2.64	226	229	234	224	243	225	228	239	224	243	227	229	234	223	251	228	227	234	223	239
-2.63	227	230	235	225	244	226	229	240	225	244	228	230	235	224	253	229	228	235	224	240
-2.62	228	230	236	225	245	226	230	241	226	245	229	231	235	225	254	230	228	236	225	241
-2.61	229	231	237	226	246	227	231	242	226	246	230	232	236	225	255	231	229	237	225	242
-2.60	229	232	238	227	248	228	232	243	227	247	230	233	237	226	257	231	230	238	226	243
-2.59	230	233	239	227	249	228	232	244	228	249	231	233	238	226	258	232	231	239	226	244
-2.58	231	234	240	228	250	229	233	245	228	250	232	234	239	227	260	233	231	240	227	245
-2.57	231	234	241	229	251	230	234	246	229	251	233	235	240	228	261	234	232	241	228	246
-2.56	232	235	242	229	252	231	235	247	230	252	233	236	241	228	262	234	233	242	228	247
-2.55	233	236	243	230	254	231	235	248	230	253	234	237	242	229	264	235	234	243	229	248
-2.54	234	237	244	231	255	232	236	250	231	255	235	238	243	230	265	236	234	244	230	249
-2.53	234	238	245	231	256	233	237	251	232	256	236	238	244	230	267	237	235	245	230	250
-2.52	235	238	245	232	257	233	238	252	232	257	236	239	245	231	268	238	236	246	231	252
-2.51	236	239	246	233	258	234	239	253	233	258	237	240	246	232	270	238	237	247	232	253
-2.50	237	240	247	233	260	235	239	254	234	259	238	241	247	232	271	239	237	248	232	254
-2.49	237	241	248	234	261	235	240	255	234	260	239	242	248	233	272	240	238	249	233	255
-2.48	238	242	249	235	262	236	241	256	235	262	240	242	249	234	274	241	239	250	234	256
-2.47	239	242	250	235	263	237	242	257	236	263	240	243	249	234	275	242	240	251	234	257
-2.46	239	243	251	236	264	237	243	258	236	264	241	244	250	235	277	242	240	252	235	258
-2.45	240	244	252	237	265	238	243	259	237	265	242	245	251	236	278	243	241	253	236	259
-2.44	241	245	253	237	267	239	244	260	238	266	243	246	252	236	280	244	242	254	236	260
-2.43	242	246	254	238	268	240	245	261	238	268	243	247	253	237	281	245	243	255	237	261
-2.42	242	246	255	239	269	240	246	262	239	269	244	247	254	237	282	245	243	256	237	262
-2.41	243	247	256	239	270	241	247	264	240	270	245	248	255	238	284	246	244	257	238	263
-2.40	244	248	257	240	271	242	247	265	240	271	246	249	256	239	285	247	245	257	239	264
-2.39	245	249	258	241	273	242	248	266	241	272	246	250	257	239	287	248	246	258	239	265
-2.38	245	250	259	241	274	243	249	267	242	273	247	251	258	240	288	249	246	259	240	267
-2.37	246	250	260	242	275	244	250	268	242	275	248	251	259	241	289	249	247	260	241	268
-2.36	247	251	261	243	276	244	250	269	243	276	249	252	260	241	291	250	248	261	241	269
-2.35	248	252	262	243	277	245	251	270	244	277	249	253	261	242	292	251	249	262	242	270
-2.34	248	253	262	244	279	246	252	271	244	278	250	254	262	243	294	252	249	263	243	271
-2.33	249	254	263	245	280	247	253	272	245	279	251	255	262	243	295	253	250	264	243	272
-2.32	250	254	264	245	281	247	254	273	246	281	252	256	263	244	297	253	251	265	244	273
-2.31	250	255	265	246	282	248	254	274	246	282	252	256	264	245	298	254	252	266	245	274
-2.30	251	256	266	247	283	249	255	275	247	283	253	257	265	245	299	255	252	267	245	275
-2.29	252	257	267	247	285	249	256	277	248	284	254	258	266	246	301	256	253	268	246	276
-2.28	253	258	268	248	286	250	257	278	249	285	255	259	267	247	302	256	254	269	247	277
-2.27	253	258	269	249	287	251	258	279	249	286	255	260	268	247	304	257	255	270	247	278

AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
-2.26	254	259	270	249	288	251	258	280	250	288	256	260	269	248	305	258	255	271	248	279
-2.25	255	260	271	250	289	252	259	281	251	289	257	261	270	248	307	259	256	272	248	280
-2.24	256	261	272	251	290	253	260	282	251	290	258	262	271	249	308	260	257	273	249	282
-2.23	256	262	273	251	292	253	261	283	252	291	259	263	272	250	309	260	258	274	250	283
-2.22	257	262	274	252	293	254	262	284	253	292	259	264	273	250	311	261	258	275	250	284
-2.21	258	263	275	253	294	255	262	285	253	294	260	265	274	251	312	262	259	276	251	285
-2.20	258	264	276	253	295	256	263	286	254	295	261	265	275	252	314	263	260	277	252	286
-2.19	259	265	277	254	296	256	264	287	255	296	262	266	276	252	315	263	261	278	252	287
-2.18	260	265	278	255	298	257	265	288	255	297	262	267	276	253	316	264	261	279	253	288
-2.17	261	266	279	255	299	258	265	289	256	298	263	268	277	254	318	265	262	280	254	289
-2.16	261	267	280	256	300	258	266	291	257	300	264	269	278	254	319	266	263	280	254	290
-2.15	262	268	280	257	301	259	267	292	257	301	265	269	279	255	321	267	264	281	255	291
-2.14	263	269	281	257	302	260	268	293	258	302	265	270	280	256	322	267	264	282	256	292
-2.13	264	269	282	258	304	260	269	294	259	303	266	271	281	256	324	268	265	283	256	293
-2.12	264	270	283	259	305	261	269	295	259	304	267	272	282	257	325	269	266	284	257	294
-2.11	265	271	284	259	306	262	270	296	260	305	268	273	283	257	326	270	267	285	257	295
-2.10	266	272	285	260	307	262	271	297	261	307	268	274	284	258	328	271	267	286	258	297
-2.09	267	273	286	261	308	263	272	298	261	308	269	274	285	259	329	271	268	287	259	298
-2.08	267	273	287	261	310	264	273	299	262	309	270	275	286	259	331	272	269	288	259	299
-2.07	268	274	288	262	311	265	273	300	263	310	271	276	287	260	332	273	270	289	260	300
-2.06	269	275	289	263	312	265	274	301	263	311	271	277	288	261	334	274	270	290	261	301
-2.05	269	276	290	263	313	266	275	302	264	313	272	278	289	261	335	274	271	291	261	302
-2.04	270	277	291	264	314	267	276	303	265	314	273	278	290	262	336	275	272	292	262	303
-2.03	271	277	292	265	315	267	276	305	265	315	274	279	290	263	338	276	273	293	263	304
-2.02	272	278	293	265	317	268	277	306	266	316	274	280	291	263	339	277	273	294	263	305
-2.01	272	279	294	266	318	269	278	307	267	317	275	281	292	264	341	278	274	295	264	306
-2.00	273	280	295	267	319	269	279	308	267	318	276	282	293	265	342	278	275	296	265	307
-1.99	274	281	296	267	320	270	280	309	268	320	277	283	294	265	343	279	276	297	265	308
-1.98	275	281	297	268	321	271	280	310	269	321	278	283	295	266	345	280	276	298	266	309
-1.97	275	282	298	269	323	272	281	311	269	322	278	284	296	267	346	281	277	299	267	311
-1.96	276	283	298	269	324	272	282	312	270	323	279	285	297	267	348	282	278	300	267	312
-1.95	277	284	299	270	325	273	283	313	271	324	280	286	298	268	349	282	279	301	268	313
-1.94	277	285	300	271	326	274	284	314	271	326	281	287	299	268	351	283	279	302	268	314
-1.93	278	285	301	271	327	274	284	315	272	327	281	287	300	269	352	284	280	302	269	315
-1.92	279	286	302	272	329	275	285	316	273	328	282	288	301	270	353	285	281	303	270	316
-1.91	280	287	303	273	330	276	286	317	273	329	283	289	302	270	355	285	282	304	270	317
-1.90	280	288	304	273	331	276	287	319	274	330	284	290	303	271	356	286	282	305	271	318
-1.89	281	289	305	274	332	277	288	320	275	332	284	291	304	272	358	287	283	306	272	319
-1.88	282	289	306	275	333	278	288	321	275	333	285	292	304	272	359	288	284	307	272	320

AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
-1.87	283	290	307	275	335	278	289	322	276	334	286	292	305	273	361	289	285	308	273	321
-1.86	283	291	308	276	336	279	290	323	277	335	287	293	306	274	362	289	285	309	274	322
-1.85	284	292	309	277	337	280	291	324	277	336	287	294	307	274	363	290	286	310	274	323
-1.84	285	293	310	277	338	281	291	325	278	337	288	295	308	275	365	291	287	311	275	324
-1.83	286	293	311	278	339	281	292	326	279	339	289	296	309	276	366	292	288	312	276	326
-1.82	286	294	312	279	340	282	293	327	280	340	290	296	310	276	368	292	288	313	276	327
-1.81	287	295	313	279	342	283	294	328	280	341	290	297	311	277	369	293	289	314	277	328
-1.80	288	296	314	280	343	283	295	329	281	342	291	298	312	278	370	294	290	315	278	329
-1.79	288	297	315	281	344	284	295	330	282	343	292	299	313	278	372	295	291	316	278	330
-1.78	289	297	316	281	345	285	296	331	282	345	293	300	314	279	373	296	291	317	279	331
-1.77	290	298	316	282	346	285	297	333	283	346	293	300	315	279	375	296	292	318	279	332
-1.76	291	299	317	283	348	286	298	334	284	347	294	301	316	280	376	297	293	319	280	333
-1.75	291	300	318	283	349	287	299	335	284	348	295	302	317	281	378	298	294	320	281	334
-1.74	292	301	319	284	350	287	299	336	285	349	296	303	318	281	379	299	294	321	281	335
-1.73	293	301	320	285	351	288	300	337	286	350	297	304	318	282	380	300	295	322	282	336
-1.72	294	302	321	285	352	289	301	338	286	352	297	305	319	283	382	300	296	323	283	337
-1.71	294	303	322	286	354	290	302	339	287	353	298	305	320	283	383	301	297	324	283	338
-1.70	295	304	323	287	355	290	303	340	288	354	299	306	321	284	385	302	297	325	284	339
-1.69	296	305	324	287	356	291	303	341	288	355	300	307	322	285	386	303	298	325	285	341
-1.68	296	305	325	288	357	292	304	342	289	356	300	308	323	285	387	303	299	326	285	342
-1.67	297	306	326	289	358	292	305	343	290	358	301	309	324	286	389	304	300	327	286	343
-1.66	298	307	327	289	360	293	306	344	290	359	302	309	325	287	390	305	300	328	287	344
-1.65	299	308	328	290	361	294	306	345	291	360	303	310	326	287	392	306	301	329	287	345
-1.64	299	309	329	291	362	294	307	347	292	361	303	311	327	288	393	307	302	330	288	346
-1.63	300	309	330	291	363	295	308	348	292	362	304	312	328	289	395	307	303	331	289	347
-1.62	301	310	331	292	364	296	309	349	293	364	305	313	329	289	396	308	303	332	289	348
-1.61	302	311	332	293	365	297	310	350	294	365	306	314	330	290	397	309	304	333	290	349
-1.60	302	312	333	293	367	297	310	351	294	366	306	314	331	290	399	310	305	334	290	350
-1.59	303	313	334	294	368	298	311	352	295	367	307	315	332	291	400	311	306	335	291	351
-1.58	304	313	334	295	369	299	312	353	296	368	308	316	332	292	402	311	306	336	292	352
-1.57	305	314	335	295	370	299	313	354	296	369	309	317	333	292	403	312	307	337	292	353
-1.56	305	315	336	296	371	300	314	355	297	371	309	318	334	293	405	313	308	338	293	355
-1.55	306	316	337	297	373	301	314	356	298	372	310	318	335	294	406	314	309	339	294	356
-1.54	307	317	338	297	374	301	315	357	298	373	311	319	336	294	407	314	309	340	294	357
-1.53	307	317	339	298	375	302	316	358	299	374	312	320	337	295	409	315	310	341	295	358
-1.52	308	318	340	299	376	303	317	359	300	375	312	321	338	296	410	316	311	342	296	359
-1.51	309	319	341	299	377	303	318	361	300	377	313	322	339	296	412	317	312	343	296	360
-1.50	310	320	342	300	379	304	318	362	301	378	314	323	340	297	413	318	312	344	297	361
-1.49	310	321	343	301	380	305	319	363	302	379	315	323	341	298	414	318	313	345	298	362

AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
-1.48	311	321	344	301	381	306	320	364	302	380	316	324	342	298	416	319	314	346	298	363
-1.47	312	322	345	302	382	306	321	365	303	381	316	325	343	299	417	320	315	347	299	364
-1.46	313	323	346	303	383	307	321	366	304	382	317	326	344	299	419	321	315	348	299	365
-1.45	313	324	347	303	385	308	322	367	304	384	318	327	345	300	420	321	316	348	300	366
-1.44	314	325	348	304	386	308	323	368	305	385	319	327	346	301	422	322	317	349	301	367
-1.43	315	325	349	305	387	309	324	369	306	386	319	328	346	301	423	323	318	350	301	368
-1.42	315	326	350	305	388	310	325	370	306	387	320	329	347	302	424	324	318	351	302	370
-1.41	316	327	351	306	389	310	325	371	307	388	321	330	348	303	426	325	319	352	303	371
-1.40	317	328	352	307	390	311	326	372	308	390	322	331	349	303	427	325	320	353	303	372
-1.39	318	329	352	307	392	312	327	373	308	391	322	332	350	304	429	326	321	354	304	373
-1.38	318	329	353	308	393	312	328	375	309	392	323	332	351	305	430	327	321	355	305	374
-1.37	319	330	354	309	394	313	329	376	310	393	324	333	352	305	432	328	322	356	305	375
-1.36	320	331	355	309	395	314	329	377	311	394	325	334	353	306	433	329	323	357	306	376
-1.35	321	332	356	310	396	315	330	378	311	395	325	335	354	307	434	329	324	358	307	377
-1.34	321	333	357	311	398	315	331	379	312	397	326	336	355	307	436	330	324	359	307	378
-1.33	322	333	358	311	399	316	332	380	313	398	327	336	356	308	437	331	325	360	308	379
-1.32	323	334	359	312	400	317	332	381	313	399	328	337	357	309	439	332	326	361	309	380
-1.31	324	335	360	313	401	317	333	382	314	400	328	338	358	309	440	332	326	362	309	381
-1.30	324	336	361	313	402	318	334	383	315	401	329	339	359	310	441	333	327	363	310	382
-1.29	325	337	362	314	404	319	335	384	315	403	330	340	360	310	443	334	328	364	310	383
-1.28	326	337	363	315	405	319	336	385	316	404	331	341	360	311	444	335	329	365	311	385
-1.27	326	338	364	315	406	320	336	386	317	405	331	341	361	312	446	336	329	366	312	386
-1.26	327	339	365	316	407	321	337	387	317	406	332	342	362	312	447	336	330	367	312	387
-1.25	328	340	366	317	408	322	338	389	318	407	333	343	363	313	449	337	331	368	313	388
-1.24	329	341	367	317	410	322	339	390	319	409	334	344	364	314	450	338	332	369	314	389
-1.23	329	341	368	318	411	323	340	391	319	410	334	345	365	314	451	339	332	370	314	390
-1.22	330	342	369	319	412	324	340	392	320	411	335	345	366	315	453	339	333	370	315	391
-1.21	331	343	370	319	413	324	341	393	321	412	336	346	367	316	454	340	334	371	316	392
-1.20	332	344	370	320	414	325	342	394	321	413	337	347	368	316	455	341	335	372	316	393
-1.19	332	345	371	321	415	326	343	395	322	414	338	348	369	317	457	342	335	373	317	394
-1.18	333	345	372	321	417	326	344	396	323	416	338	349	370	318	458	343	336	374	318	395
-1.17	334	346	373	322	418	327	344	397	323	417	339	350	371	318	459	343	337	375	318	396
-1.16	335	347	374	323	419	328	345	398	324	418	340	350	372	319	461	344	338	376	319	397
-1.15	335	348	375	323	420	328	346	399	325	419	341	351	373	320	462	345	338	377	320	398
-1.14	336	349	376	324	421	329	347	400	325	420	341	352	374	320	464	346	339	378	320	400
-1.13	337	349	377	325	423	330	347	402	326	422	342	353	374	321	465	347	340	379	321	401
-1.12	337	350	378	325	424	331	348	403	327	423	343	354	375	321	466	347	341	380	321	402
-1.11	338	351	379	326	425	331	349	404	327	424	344	354	376	322	468	348	341	381	322	403
-1.10	339	352	380	327	426	332	350	405	328	425	344	355	377	323	469	349	342	382	323	404

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	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
-1.09	340	353	381	327	427	333	351	406	329	426	345	356	378	323	470	350	343	383	323	405
-1.08	340	353	382	328	429	333	351	407	329	427	346	357	379	324	472	350	344	384	324	406
-1.07	341	354	383	329	430	334	352	408	330	429	347	358	380	325	473	351	344	385	325	407
-1.06	342	355	384	329	431	335	353	409	331	430	347	358	381	325	474	352	345	386	325	408
-1.05	343	356	385	330	432	335	354	410	331	431	348	359	382	326	476	353	346	387	326	409
-1.04	343	357	386	331	433	336	355	411	332	432	349	360	383	327	477	354	347	388	327	410
-1.03	344	357	387	331	435	337	355	412	333	433	350	361	384	327	478	354	347	389	327	411
-1.02	345	358	387	332	436	337	356	413	333	435	350	362	385	328	480	355	348	390	328	412
-1.01	345	359	388	333	437	338	357	414	334	436	351	363	386	329	481	356	349	391	329	414
-1.00	346	360	389	333	438	339	358	416	335	437	352	363	387	329	482	357	350	392	329	415
-.99	347	361	390	334	439	340	359	417	335	438	353	364	387	330	484	358	350	393	330	416
-.98	348	361	391	335	440	340	359	418	336	439	353	365	388	330	485	358	351	393	330	417
-.97	348	362	392	335	442	341	360	419	337	441	354	366	389	331	486	359	352	394	331	418
-.96	349	363	393	336	443	342	361	420	337	442	355	367	390	332	488	360	353	395	332	419
-.95	350	364	394	337	444	342	362	421	338	443	356	367	391	332	489	361	353	396	332	420
-.94	351	365	395	337	445	343	362	422	339	444	357	368	392	333	491	361	354	397	333	421
-.93	351	365	396	338	446	344	363	423	339	445	357	369	393	334	492	362	355	398	334	422
-.92	352	366	397	339	448	344	364	424	340	446	358	370	394	334	493	363	356	399	334	423
-.91	353	367	398	339	449	345	365	425	341	448	359	371	395	335	495	364	356	400	335	424
-.90	354	368	399	340	450	346	366	426	342	449	360	372	396	336	496	365	357	401	336	425
-.89	354	369	400	341	453	347	366	427	342	450	360	372	397	336	497	365	358	402	336	426
-.88	355	369	401	341	456	347	367	428	343	453	361	373	398	337	499	366	359	403	337	427
-.87	356	370	402	342	460	348	368	430	344	456	362	374	399	338	500	367	359	404	338	429
-.86	356	371	403	343	463	349	369	431	344	458	363	375	400	338	501	368	360	405	338	430
-.85	357	372	404	343	466	349	370	432	345	461	363	376	401	339	503	368	361	406	339	431
-.84	358	373	405	344	469	350	370	433	346	464	364	376	401	340	504	369	362	407	340	432
-.83	359	373	405	345	472	351	371	434	346	467	365	377	402	340	505	370	362	408	340	433
-.82	359	374	406	345	476	351	372	435	347	470	366	378	403	341	507	371	363	409	341	434
-.81	360	375	407	346	479	352	373	436	348	473	366	379	404	341	508	372	364	410	341	435
-.80	361	376	408	347	482	353	374	437	348	475	367	380	405	342	509	372	365	411	342	436
-.79	362	377	409	347	485	353	374	438	349	478	368	381	406	343	511	373	365	412	343	437
-.78	362	377	410	348	488	354	375	439	350	481	369	381	407	343	512	374	366	413	343	438
-.77	363	378	411	349	491	355	376	440	350	484	369	382	408	344	514	375	367	414	344	439
-.76	364	379	412	349	495	356	377	441	351	487	370	383	409	345	515	376	368	415	345	440
-.75	364	380	413	350	498	356	377	442	352	490	371	384	410	345	516	376	368	416	345	441
-.74	365	381	414	351	501	357	378	444	352	492	372	385	411	346	518	377	369	416	346	442
-.73	366	381	415	351	504	358	379	445	353	495	372	385	412	347	519	378	370	417	347	444
-.72	367	382	416	352	507	358	380	446	354	498	373	386	413	347	520	379	371	418	347	445
-.71	367	383	417	353	511	359	381	447	354	501	374	387	414	348	522	379	371	419	348	446

AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
-.70	368	384	418	353	514	360	381	448	355	504	375	388	415	349	523	380	372	420	349	447
-.69	369	385	419	354	517	360	382	449	356	507	376	389	415	349	524	381	373	421	349	448
-.68	370	385	420	355	520	361	383	450	356	509	376	390	416	350	526	382	374	422	350	449
-.67	370	386	421	355	523	362	384	452	357	512	377	390	417	351	527	383	374	423	351	450
-.66	371	387	422	356	527	362	385	454	358	515	378	391	418	351	528	383	375	424	351	453
-.65	372	388	423	357	530	363	385	457	358	518	379	392	419	352	530	384	376	425	352	456
-.64	373	388	423	357	533	364	386	459	359	521	379	393	420	352	531	385	377	426	352	459
-.63	373	389	424	358	536	365	387	461	360	524	380	394	421	353	532	386	377	427	353	462
-.62	374	390	425	359	539	365	388	463	360	526	381	394	422	354	534	387	378	428	354	465
-.61	375	391	426	359	543	366	388	465	361	529	382	395	423	354	535	387	379	429	354	468
-.60	375	392	427	360	546	367	389	468	362	532	382	396	424	355	536	388	380	430	355	471
-.59	376	392	428	361	549	367	390	470	362	535	383	397	425	356	538	389	380	431	356	474
-.58	377	393	429	361	552	368	391	472	363	538	384	398	426	356	539	390	381	432	356	476
-.57	378	394	430	362	555	369	392	474	364	541	385	399	427	357	541	390	382	433	357	479
-.56	378	395	431	363	559	369	392	476	364	543	385	399	428	358	542	391	383	434	358	482
-.55	379	396	432	363	562	370	393	479	365	546	386	400	429	358	543	392	383	435	358	485
-.54	380	396	433	364	565	371	394	481	366	549	387	401	429	359	545	393	384	436	359	488
-.53	381	397	434	365	568	372	395	483	366	552	388	402	430	360	546	394	385	437	360	491
-.52	381	398	435	365	571	372	396	485	367	555	388	403	431	360	547	394	386	438	360	494
-.51	382	399	436	366	574	373	396	487	368	558	389	403	432	361	549	395	386	439	361	497
-.50	383	400	437	367	578	374	397	490	368	560	390	404	433	361	550	396	387	439	361	500
-.49	383	400	438	367	581	374	398	492	369	563	391	405	434	362	551	397	388	440	362	503
-.48	384	401	439	368	584	375	399	494	370	566	391	406	435	363	553	397	389	441	363	506
-.47	385	402	440	369	587	376	400	496	370	569	392	407	436	363	554	398	389	442	363	509
-.46	386	403	441	369	590	376	400	499	371	572	393	408	437	364	555	399	390	443	364	512
-.45	386	404	441	370	594	377	401	501	372	575	394	408	438	365	557	400	391	444	365	515
-.44	387	404	442	371	597	378	402	503	373	577	395	409	439	365	558	401	392	445	365	518
-.43	388	405	443	371	600	378	403	505	373	580	395	410	440	366	559	401	392	446	366	521
-.42	389	406	444	372	603	379	403	507	374	583	396	411	441	367	561	402	393	447	367	524
-.41	389	407	445	373	606	380	404	510	375	586	397	412	442	367	562	403	394	448	367	526
-.40	390	408	446	373	609	381	405	512	375	589	398	412	443	368	564	404	395	449	368	529
-.39	391	408	447	374	612	381	406	514	376	592	398	413	443	369	565	405	395	450	369	532
-.38	392	409	448	375	615	382	407	516	377	594	399	414	444	369	566	405	396	456	369	535
-.37	392	410	449	375	618	383	407	518	377	597	400	415	445	370	568	406	397	462	370	538
-.36	393	411	450	376	621	383	408	521	378	600	401	416	446	371	569	407	398	467	371	541
-.35	394	412	456	377	624	384	409	523	379	603	401	417	447	371	570	408	398	473	371	544
-.34	394	412	462	377	626	385	410	525	379	605	402	417	448	372	572	408	399	479	372	547
-.33	395	413	467	378	629	385	411	527	380	608	403	418	449	372	573	409	400	485	372	550
-.32	396	414	473	379	632	386	411	529	381	610	404	419	450	373	574	410	401	490	373	553

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	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
-.31	397	415	479	379	635	387	412	532	381	613	404	420	454	374	576	411	401	496	374	556
-.30	397	416	485	380	638	387	413	534	382	615	405	421	459	374	577	412	402	502	374	559
-.29	398	416	490	381	641	388	414	536	383	618	406	421	463	375	578	412	403	508	375	562
-.28	399	417	496	381	644	389	415	538	383	621	407	422	467	376	580	413	404	513	376	565
-.27	400	418	502	382	647	390	415	540	384	623	407	423	471	376	581	414	404	519	376	568
-.26	400	419	508	383	650	390	416	543	385	626	408	424	476	377	582	415	405	525	377	571
-.25	401	420	513	383	653	391	417	545	385	628	409	425	480	378	584	416	406	531	378	574
-.24	402	420	519	384	656	392	418	547	386	631	410	425	484	378	585	416	407	537	378	576
-.23	402	421	525	385	659	392	418	549	387	633	410	426	489	379	586	417	407	542	379	579
-.22	403	422	531	385	662	393	419	551	387	636	411	427	493	380	588	418	408	548	380	582
-.21	404	423	537	386	665	394	420	554	388	638	412	428	497	380	589	419	409	554	380	585
-.20	405	424	542	387	668	394	421	556	389	641	413	429	501	381	591	419	410	560	381	588
-.19	405	424	548	387	671	395	422	558	389	644	414	430	506	382	592	420	410	565	382	591
-.18	406	425	554	388	674	396	422	560	390	646	414	430	510	382	593	421	411	571	382	594
-.17	407	426	560	389	676	397	423	563	391	649	415	431	514	383	595	422	412	577	383	597
-.16	408	427	565	389	679	397	424	565	391	651	416	432	519	383	596	423	413	583	383	600
-.15	408	428	571	390	682	398	425	567	392	654	417	433	523	384	597	423	413	588	384	602
-.14	409	428	577	391	685	399	426	569	393	656	417	434	527	385	599	424	414	594	385	604
-.13	410	429	583	391	688	399	426	571	393	659	418	434	531	385	600	425	415	600	385	607
-.12	411	430	588	392	691	400	427	574	394	662	419	435	536	386	610	426	416	605	386	609
-.11	411	431	594	393	694	401	428	576	395	664	420	436	540	387	620	426	416	610	387	611
-.10	412	432	600	393	697	401	429	578	395	667	420	437	544	387	630	427	417	614	387	613
-.09	413	432	603	394	700	402	429	580	396	669	421	438	549	388	640	428	418	619	388	616
-.08	413	433	606	395	700	403	430	582	397	672	422	439	553	389	650	429	419	624	389	618
-.07	414	434	609	395	701	403	431	585	397	674	423	439	557	389	660	430	419	629	389	620
-.06	415	435	611	396	701	404	432	587	398	677	423	440	561	390	670	430	420	633	390	622
-.05	416	436	614	397	701	405	433	589	399	679	424	441	566	391	680	431	421	638	391	624
-.04	416	436	617	397	702	406	433	591	399	682	425	442	570	391	690	432	422	643	391	627
-.03	417	437	620	398	702	406	434	593	400	685	426	443	574	392	700	433	422	648	392	629
-.02	418	438	623	399	702	407	435	596	401	687	426	443	579	393	700	434	423	652	393	631
-.01	419	439	626	399	703	408	436	598	401	690	427	444	583	393	701	434	424	657	393	633
.00	419	440	629	400	703	408	437	600	402	692	428	445	587	394	701	435	425	662	394	636
.01	420	440	631	401	703	409	437	602	403	695	429	446	591	394	701	436	425	667	394	638
.02	421	441	634	401	704	410	438	604	404	697	429	447	596	395	702	437	426	671	395	640
.03	421	442	637	402	704	410	439	606	404	700	430	448	600	396	702	437	427	676	396	642
.04	422	443	640	403	704	411	440	609	405	700	431	448	604	396	702	438	428	681	396	644
.05	423	444	643	403	705	412	441	611	406	701	432	449	607	397	703	439	428	686	397	647
.06	424	444	646	404	705	412	441	613	406	701	433	450	611	398	703	440	429	690	398	649
.07	424	445	649	405	705	413	442	615	407	701	433	455	614	398	703	441	430	695	398	651

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AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
.08	425	446	651	405	706	414	443	617	408	702	434	459	618	399	704	441	431	700	399	653
.09	426	447	654	406	706	415	444	619	408	702	435	464	621	400	704	442	431	700	400	656
.10	427	448	657	407	706	415	444	621	409	702	436	469	625	400	704	443	432	701	400	658
.11	427	448	660	407	706	416	445	623	410	703	436	473	629	401	705	444	433	701	401	660
.12	428	449	663	408	707	417	446	626	410	703	437	478	632	402	705	445	434	701	402	662
.13	429	450	666	409	707	417	447	628	411	703	438	483	636	402	705	445	434	702	402	664
.14	430	457	669	409	707	418	448	630	412	704	439	488	639	403	706	446	435	702	403	667
.15	430	464	671	410	708	419	448	632	412	704	439	492	643	403	706	447	436	702	403	669
.16	431	470	674	411	708	419	449	634	413	704	440	497	646	404	706	448	437	703	404	671
.17	432	477	677	411	708	420	450	636	414	705	441	502	650	405	707	448	437	703	405	673
.18	432	484	680	412	709	421	457	638	414	705	442	506	654	405	707	449	438	703	405	676
.19	433	491	683	413	709	422	464	640	415	705	442	511	657	406	707	450	439	704	406	678
.20	434	498	686	413	709	422	470	643	416	706	443	516	661	407	708	453	440	704	407	680
.21	435	505	689	414	710	423	477	645	416	706	444	520	664	407	708	456	440	704	407	682
.22	435	511	691	415	710	424	484	647	417	706	445	525	668	408	708	458	441	705	408	684
.23	436	518	694	415	710	424	491	649	418	707	445	530	671	409	709	461	442	705	409	687
.24	437	525	697	416	711	425	498	651	418	707	446	534	675	409	709	464	443	705	409	689
.25	438	532	700	417	711	426	505	653	419	707	447	539	679	410	709	467	443	706	410	691
.26	438	539	700	417	711	426	511	655	420	708	448	544	682	411	710	470	444	706	411	693
.27	439	545	701	418	712	427	518	657	420	708	448	548	686	411	710	473	445	707	411	696
.28	440	552	701	419	712	428	525	660	421	708	449	553	689	412	710	475	446	707	412	698
.29	440	559	701	419	712	428	532	662	422	709	450	558	693	413	711	478	446	707	413	700
.30	441	566	702	420	713	429	539	664	422	709	453	563	696	413	711	481	447	708	413	700
.31	442	573	702	421	713	430	545	666	423	709	455	567	700	414	711	484	448	708	414	701
.32	443	580	703	421	713	431	552	668	424	710	458	572	700	414	712	487	449	708	414	701
.33	443	586	703	422	714	431	559	670	424	710	461	577	701	415	712	490	449	709	415	701
.34	444	593	703	423	714	432	566	672	425	710	463	581	701	416	712	492	450	709	416	702
.35	445	600	704	423	714	433	573	674	426	711	466	586	701	416	713	495	462	709	416	702
.36	446	603	704	424	715	433	580	677	426	711	469	591	702	417	713	498	475	710	417	703
.37	446	607	704	425	715	434	586	679	427	711	471	595	702	418	713	501	487	710	418	703
.38	447	610	705	425	715	435	593	681	428	712	474	600	703	418	714	504	500	710	418	703
.39	448	614	705	426	716	435	600	683	428	712	477	604	703	419	714	507	512	711	419	704
.40	449	617	705	427	716	436	603	685	429	712	479	607	703	420	714	509	525	711	420	704
.41	449	621	706	427	716	437	606	687	430	713	482	611	704	420	715	512	537	711	420	704
.42	450	624	706	428	717	437	609	689	430	713	485	615	704	421	715	515	550	712	421	705
.43	453	628	707	429	717	438	612	691	431	713	487	619	704	422	715	518	562	712	422	705
.44	456	631	707	429	717	439	615	694	432	714	490	622	705	422	716	521	575	712	422	706
.45	458	634	707	430	717	440	618	696	432	714	493	626	705	423	716	524	587	713	423	706
.46	461	638	708	431	718	440	621	698	433	714	496	630	706	424	716	526	600	713	424	706

Table 2, continued

AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
.47	464	641	708	431	718	441	624	700	434	715	498	633	706	424	717	529	604	713	424	707
.48	467	645	708	432	718	442	627	700	435	715	501	637	706	425	717	532	607	714	425	707
.49	470	648	709	433	719	442	630	701	435	715	504	641	707	425	717	535	611	714	425	707
.50	473	652	709	433	719	443	633	701	436	716	506	644	707	426	717	538	615	714	426	708
.51	475	655	709	434	719	444	636	702	437	716	509	648	707	427	718	541	619	715	427	708
.52	478	659	710	435	720	444	639	702	437	716	512	652	708	427	718	543	622	715	427	708
.53	481	662	710	435	720	445	642	702	438	717	514	656	708	428	718	546	626	715	428	709
.54	484	666	711	436	720	446	645	703	439	717	517	659	709	429	719	549	630	716	429	709
.55	487	669	711	437	721	447	648	703	439	718	520	663	709	429	719	552	633	716	429	710
.56	490	672	711	437	721	447	652	704	440	718	522	667	709	430	719	555	637	716	430	710
.57	492	676	712	438	721	448	655	704	441	718	525	670	710	431	720	558	641	717	431	710
.58	495	679	712	439	722	449	658	704	441	719	528	674	710	431	720	560	644	717	431	711
.59	498	683	712	439	722	449	661	705	442	719	530	678	710	432	720	563	648	717	432	711
.60	501	686	713	440	722	450	664	705	443	719	533	681	711	433	721	566	652	718	433	711
.61	504	690	713	441	723	453	667	706	443	720	536	685	711	433	721	569	656	718	433	712
.62	507	693	713	441	723	457	670	706	444	720	538	689	712	434	721	572	659	718	434	712
.63	509	697	714	442	723	460	673	706	445	720	541	693	712	434	722	575	663	719	434	713
.64	512	700	714	443	724	464	676	707	445	721	544	696	712	435	722	577	667	719	435	713
.65	515	700	715	443	724	467	679	707	446	721	546	700	713	436	722	580	670	720	436	713
.66	518	701	715	444	724	471	682	708	447	721	549	700	713	436	723	583	674	720	436	714
.67	521	701	715	445	725	474	685	708	447	722	552	701	713	437	723	586	678	720	437	714
.68	524	702	716	445	725	478	688	708	448	722	554	701	714	438	723	589	681	721	438	714
.69	526	702	716	446	725	481	691	709	449	722	557	702	714	438	724	592	685	721	438	715
.70	529	703	716	447	726	485	694	709	449	723	560	702	714	439	724	594	689	721	439	715
.71	532	703	717	447	726	488	697	709	450	723	562	703	715	440	724	597	693	722	440	715
.72	535	703	717	448	726	492	700	710	454	723	565	703	715	440	725	600	696	722	440	716
.73	538	704	717	449	727	495	700	710	457	724	568	703	716	441	725	606	700	722	441	716
.74	541	704	718	449	727	499	701	711	461	724	571	704	716	442	725	612	700	723	442	717
.75	543	705	718	450	727	502	701	711	465	724	573	704	716	442	726	619	701	723	442	717
.76	546	705	719	457	728	506	702	711	469	725	576	705	717	443	726	625	701	723	443	717
.77	549	706	719	464	728	509	702	712	472	725	579	705	717	444	726	631	702	724	444	718
.78	552	706	719	470	728	513	703	712	476	725	581	706	717	444	727	637	702	724	444	718
.79	555	706	720	477	728	516	703	713	480	726	584	706	718	445	727	644	703	724	445	718
.80	558	707	720	484	729	520	704	713	484	726	587	706	718	445	727	650	703	725	445	719
.81	560	707	720	491	729	523	704	713	488	726	589	707	719	446	728	656	704	725	446	719
.82	563	708	721	498	729	527	704	714	491	727	592	707	719	447	728	662	704	725	447	720
.83	566	708	721	505	730	530	705	714	495	727	595	708	719	447	728	669	704	726	447	720
.84	569	708	721	511	730	534	705	715	499	727	597	708	720	448	729	675	705	726	448	720
.85	572	709	722	518	730	537	706	715	503	728	600	709	720	449	729	681	705	726	449	721

Table 2, continued

AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
.86	575	709	722	525	731	541	706	715	506	728	612	709	720	449	729	687	706	727	449	721
.87	577	710	723	532	731	544	707	716	510	728	625	709	721	450	730	694	706	727	450	721
.88	580	710	723	539	731	548	707	716	514	729	638	710	721	456	730	700	707	727	458	722
.89	583	711	723	545	732	551	707	717	518	729	650	710	722	462	730	700	707	728	465	722
.90	586	711	724	552	732	555	708	717	521	729	663	711	722	467	731	701	707	728	473	723
.91	589	711	724	559	732	558	708	717	525	730	675	711	722	473	731	701	708	728	480	723
.92	592	712	724	566	733	562	709	718	529	730	688	711	723	479	731	702	708	729	488	723
.93	594	712	725	573	733	565	709	718	533	730	700	712	723	485	732	702	709	729	495	724
.94	597	713	725	580	733	569	710	719	536	731	700	712	723	490	732	703	709	729	503	724
.95	600	713	725	586	734	572	710	719	540	731	701	713	724	496	732	703	710	730	510	724
.96	608	714	726	593	734	576	711	719	544	731	701	713	724	502	733	704	710	730	518	725
.97	617	714	726	600	734	579	711	720	548	732	702	714	725	508	733	704	711	730	525	725
.98	625	714	727	605	735	583	711	720	551	732	702	714	725	513	733	705	711	731	533	725
.99	633	715	727	610	735	586	712	721	555	732	703	714	725	519	734	705	711	731	540	726
1.00	642	715	727	615	735	590	712	721	559	733	703	715	726	525	734	706	712	732	548	726
1.01	650	716	728	620	736	593	713	721	563	733	704	715	726	531	734	706	712	732	555	727
1.02	658	716	728	625	736	597	713	722	566	733	704	716	726	537	735	707	713	732	563	727
1.03	667	717	728	630	736	600	714	722	570	734	705	716	727	542	735	707	713	733	570	727
1.04	675	717	729	635	737	608	714	723	574	734	705	717	727	548	735	708	714	733	578	728
1.05	683	717	729	640	737	615	714	723	578	734	706	717	728	554	736	708	714	733	585	728
1.06	692	718	729	645	737	623	715	723	581	735	706	717	728	560	736	708	715	734	593	728
1.07	700	718	730	650	738	631	715	724	585	735	707	718	728	565	736	709	715	734	600	729
1.08	701	719	730	655	738	638	716	724	589	735	707	718	729	571	737	709	715	734	608	729
1.09	701	719	731	660	738	646	716	725	593	736	708	719	729	577	737	710	716	735	617	730
1.10	702	719	731	665	739	654	717	725	596	736	708	719	729	583	737	710	716	735	625	730
1.11	702	720	731	670	739	662	717	725	600	736	709	720	730	588	738	711	717	735	633	730
1.12	703	720	732	675	739	669	718	726	607	737	709	720	730	594	738	711	717	736	642	731
1.13	703	721	732	680	739	677	718	726	614	737	710	720	730	600	738	712	718	736	650	731
1.14	704	721	732	685	740	685	718	726	621	737	710	721	731	607	739	712	718	736	658	731
1.15	704	722	733	690	740	692	719	727	629	738	711	721	731	613	739	713	719	737	667	732
1.16	705	722	733	695	740	700	719	727	636	738	711	722	732	620	739	713	719	737	675	732
1.17	705	722	733	700	741	701	720	728	643	738	712	722	732	627	740	714	719	737	683	732
1.18	706	723	734	701	741	701	720	728	650	739	712	723	732	633	740	714	720	738	692	733
1.19	706	723	734	701	741	702	721	728	657	739	713	723	733	640	740	715	720	738	700	733
1.20	707	724	735	702	742	702	721	729	664	739	713	723	733	647	741	715	721	738	701	734
1.21	707	724	735	702	742	703	721	729	671	740	714	724	733	653	741	716	721	739	701	734
1.22	708	725	735	703	742	703	722	730	679	740	714	724	734	660	741	716	722	739	702	734
1.23	708	725	736	703	743	704	722	730	686	740	714	725	734	667	742	717	722	739	702	735
1.24	709	725	736	704	743	704	723	730	693	741	715	725	735	673	742	717	722	740	703	735

Table 2, continu

AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
1.25	709	726	736	704	743	705	723	731	700	741	715	726	735	680	742	717	723	740	703	735
1.26	710	726	737	705	744	705	724	731	701	741	716	726	735	687	743	718	723	740	704	736
1.27	710	727	737	705	744	706	724	732	701	742	716	726	736	693	743	718	724	741	704	736
1.28	711	727	737	706	744	707	725	732	702	742	717	727	736	700	743	719	724	741	705	737
1.29	711	728	738	707	745	707	725	732	702	742	717	727	736	701	744	719	725	741	706	737
1.30	712	728	738	707	745	708	725	733	703	743	718	728	737	701	744	720	725	742	706	737
1.31	712	728	739	708	745	708	726	733	703	743	718	728	737	702	744	720	726	742	707	738
1.32	713	729	739	708	746	709	726	734	704	743	719	729	738	702	745	721	726	742	707	738
1.33	713	729	739	709	746	709	727	734	705	744	719	729	738	703	745	721	726	743	708	738
1.34	714	730	740	709	746	710	727	734	705	744	720	729	738	703	745	722	727	743	708	739
1.35	715	730	740	710	747	710	728	735	706	744	720	730	739	704	746	722	727	743	709	739
1.36	715	731	740	710	747	711	728	735	706	745	721	730	739	705	746	723	728	744	709	739
1.37	716	731	741	711	747	711	729	736	707	745	721	731	739	705	746	723	728	744	710	740
1.38	716	731	741	711	748	712	729	736	707	745	722	731	740	706	747	724	729	745	710	740
1.39	717	732	741	712	748	713	729	736	708	746	722	731	740	706	747	724	729	745	711	741
1.40	717	732	742	713	748	713	730	737	709	746	723	732	741	707	747	725	730	745	712	741
1.41	718	733	742	713	749	714	730	737	709	746	723	732	741	708	748	725	730	746	712	741
1.42	718	733	743	714	749	714	731	738	710	747	724	733	741	708	748	725	730	746	713	742
1.43	719	733	743	714	749	715	731	738	710	747	724	733	742	709	748	726	731	746	713	742
1.44	719	734	743	715	750	715	732	738	711	747	725	734	742	709	749	726	731	747	714	742
1.45	720	734	744	715	750	716	732	739	711	748	725	734	742	710	749	727	732	747	714	743
1.46	720	735	744	716	750	716	732	739	712	748	726	734	743	710	749	727	732	747	715	743
1.47	721	735	744	716	750	717	733	740	713	748	726	735	743	711	750	728	733	748	715	744
1.48	721	736	745	717	751	717	733	740	713	749	727	735	743	712	750	728	733	748	716	744
1.49	722	736	745	717	751	718	734	740	714	749	727	736	744	712	750	729	733	748	717	744
1.50	722	736	745	718	751	718	734	741	714	749	728	736	744	713	750	729	734	749	717	745
1.51	723	737	746	719	752	719	735	741	715	750	728	737	745	713	751	730	734	749	718	745
1.52	723	737	746	719	752	720	735	742	715	750	729	737	745	714	751	730	735	749	718	745
1.53	724	738	747	720	752	720	736	742	716	751	729	737	745	715	751	731	735	750	719	746
1.54	724	738	747	720	753	721	736	742	717	751	729	738	746	715	752	731	736	750	719	746
1.55	725	739	747	721	753	721	736	743	717	751	730	738	746	716	752	732	736	750	720	746
1.56	725	739	748	721	753	722	737	743	718	752	730	739	746	716	752	732	737	751	720	747
1.57	726	739	748	722	754	722	737	743	718	752	731	739	747	717	753	733	737	751	721	747
1.58	726	740	748	722	754	723	738	744	719	752	731	740	747	717	753	733	737	751	722	748
1.59	727	740	749	723	754	723	738	744	719	753	732	740	748	718	753	733	738	752	722	748
1.60	727	741	749	723	755	724	739	745	720	753	732	740	748	719	754	734	738	752	723	748
1.61	728	741	749	724	755	724	739	745	721	753	733	741	748	719	754	734	739	752	723	749
1.62	728	742	750	725	755	725	739	745	721	754	733	741	749	720	754	735	739	753	724	749
1.63	729	742	750	725	756	726	740	746	722	754	734	742	749	720	755	735	740	753	724	749

AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
1.64	730	742	751	726	756	726	740	746	722	754	734	742	749	721	755	736	740	753	725	750
1.65	730	743	751	726	756	727	741	747	723	755	735	743	750	722	755	736	741	754	725	750
1.66	731	743	751	727	757	727	741	747	723	755	735	743	750	722	756	737	741	754	726	751
1.67	731	744	752	727	757	728	742	747	724	755	736	743	751	723	756	737	741	754	727	751
1.68	732	744	752	728	757	728	742	748	725	756	736	744	751	723	756	738	742	755	727	751
1.69	732	744	752	728	758	729	743	748	725	756	737	744	751	724	757	738	742	755	728	752
1.70	733	745	753	729	758	729	743	749	726	756	737	745	752	724	757	739	743	755	728	752
1.71	733	745	753	730	758	730	743	749	726	757	738	745	752	725	757	739	743	756	729	752
1.72	734	746	753	730	759	730	744	749	727	757	738	746	752	726	758	740	744	756	729	753
1.73	734	746	754	731	759	731	744	750	727	757	739	746	753	726	758	740	744	757	730	753
1.74	735	747	754	731	759	732	745	750	728	758	739	746	753	727	758	741	744	757	730	754
1.75	735	747	755	732	760	732	745	751	729	758	740	747	754	727	759	741	745	757	731	754
1.76	736	747	755	732	760	733	746	751	729	758	740	747	754	728	759	742	745	758	731	754
1.77	736	748	755	733	760	733	746	751	730	759	741	748	754	728	759	742	746	758	732	755
1.78	737	748	756	733	761	734	746	752	730	759	741	748	755	729	760	742	746	758	733	755
1.79	737	749	756	734	761	734	747	752	731	759	742	749	755	730	760	743	747	759	733	755
1.80	738	749	756	734	761	735	747	753	731	760	742	749	755	730	760	743	747	759	734	756
1.81	738	750	757	735	761	735	748	753	732	760	743	749	756	731	761	744	748	759	734	756
1.82	739	750	757	736	762	736	748	753	733	760	743	750	756	731	761	744	748	760	735	756
1.83	739	750	757	736	762	736	749	754	733	761	743	750	757	732	761	745	748	760	735	757
1.84	740	751	758	737	762	737	749	754	734	761	744	751	757	733	762	745	749	760	736	757
1.85	740	751	758	737	763	738	750	755	734	761	744	751	757	733	762	746	749	761	736	758
1.86	741	752	759	738	763	738	750	755	735	762	745	751	758	734	762	746	750	761	737	758
1.87	741	752	759	738	763	739	750	755	735	762	745	752	758	734	763	747	750	761	738	758
1.88	742	753	759	739	764	739	751	756	736	762	746	752	758	735	763	747	751	762	738	759
1.89	742	753	760	739	764	740	751	756	737	763	746	753	759	735	763	748	751	762	739	759
1.90	743	753	760	740	764	740	752	757	737	763	747	753	759	736	764	748	752	762	739	759
1.91	744	754	760	740	765	741	752	757	738	763	747	754	759	737	764	749	752	763	740	760
1.92	744	754	761	741	765	741	753	757	738	764	748	754	760	737	764	749	752	763	740	760
1.93	745	755	761	742	765	742	753	758	739	764	748	754	760	738	765	750	753	763	741	761
1.94	745	755	761	742	766	742	754	758	739	764	749	755	761	738	765	750	753	764	741	761
1.95	746	756	762	743	766	743	754	758	740	765	749	755	761	739	765	750	754	764	742	761
1.96	746	756	762	743	766	743	754	759	741	765	750	756	761	740	766	751	754	764	743	762
1.97	747	756	763	744	767	744	755	759	741	765	750	756	762	740	766	751	755	765	743	762
1.98	747	757	763	744	767	745	755	760	742	766	751	757	762	741	766	752	755	765	744	762
1.99	748	757	763	745	767	745	756	760	742	766	751	757	762	741	767	752	756	765	744	763
2.00	748	758	764	745	768	746	756	760	743	766	752	757	763	742	767	753	756	766	745	763
2.01	749	758	764	746	768	746	757	761	743	767	752	758	763	742	767	753	756	766	745	763
2.02	749	758	764	746	768	747	757	761	744	767	753	758	764	743	768	754	757	766	746	764

AVERAG. STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
2.03	750	759	765	747	769	747	757	762	745	767	753	759	764	744	768	754	757	767	746	764
2.04	750	759	765	748	769	748	758	762	745	768	754	759	764	744	768	755	758	767	747	765
2.05	751	760	765	748	769	748	758	762	746	768	754	760	765	745	769	755	758	767	748	765
2.06	751	760	766	749	770	749	759	763	746	768	755	760	765	745	769	756	759	768	748	765
2.07	752	761	766	749	770	749	759	763	747	769	755	760	765	746	769	756	759	768	749	766
2.08	752	761	767	750	770	750	760	764	747	769	756	761	766	747	770	757	759	768	749	766
2.09	753	761	767	750	771	751	760	764	748	769	756	761	766	747	770	757	760	769	750	766
2.10	753	762	767	751	771	751	761	764	749	770	757	762	767	748	770	758	760	769	750	767
2.11	754	762	768	751	771	752	761	765	749	770	757	762	767	748	771	758	761	770	751	767
2.12	754	763	768	752	772	752	761	765	750	770	757	763	767	749	771	758	761	770	751	768
2.13	755	763	768	752	772	753	762	766	750	771	758	763	768	749	771	759	762	770	752	768
2.14	755	764	769	753	772	753	762	766	751	771	758	763	768	750	772	759	762	771	752	768
2.15	756	764	769	754	772	754	763	766	751	771	759	764	768	751	772	760	763	771	753	769
2.16	756	764	769	754	773	754	763	767	752	772	759	764	769	751	772	760	763	771	754	769
2.17	757	765	770	755	773	755	764	767	753	772	760	765	769	752	773	761	763	772	754	769
2.18	758	765	770	755	773	755	764	768	753	772	760	765	770	752	773	761	764	772	755	770
2.19	758	766	771	756	774	756	764	768	754	773	761	766	770	753	773	762	764	772	755	770
2.20	759	766	771	756	774	757	765	768	754	773	761	766	770	753	774	762	765	773	756	770
2.21	759	767	771	757	774	757	765	769	755	773	762	766	771	754	774	763	765	773	756	771
2.22	760	767	772	757	775	758	766	769	755	774	762	767	771	755	774	763	766	773	757	771
2.23	760	767	772	758	775	758	766	770	756	774	763	767	771	755	775	764	766	774	757	772
2.24	761	768	772	758	775	759	767	770	757	774	763	768	772	756	775	764	767	774	758	772
2.25	761	768	773	759	776	759	767	770	757	775	764	768	772	756	775	765	767	774	759	772
2.26	762	769	773	760	776	760	768	771	758	775	764	769	772	757	776	765	767	775	759	773
2.27	762	769	773	760	776	760	768	771	758	775	765	769	773	758	776	766	768	775	760	773
2.28	763	769	774	761	777	761	768	772	759	776	765	769	773	758	776	766	768	775	760	773
2.29	763	770	774	761	777	761	769	772	759	776	766	770	774	759	777	767	769	776	761	774
2.30	764	770	775	762	777	762	769	772	760	776	766	770	774	759	777	767	769	776	761	774
2.31	764	771	775	762	778	763	770	773	761	777	767	771	774	760	777	767	770	776	762	775
2.32	765	771	775	763	778	763	770	773	761	777	767	771	775	760	778	768	770	777	762	775
2.33	765	772	776	763	778	764	771	774	762	777	768	771	775	761	778	768	770	777	763	775
2.34	766	772	776	764	779	764	771	774	762	778	768	772	775	762	778	769	771	777	764	776
2.35	766	772	776	764	779	765	771	774	763	778	769	772	776	762	779	769	771	778	764	776
2.36	767	773	777	765	779	765	772	775	763	778	769	773	776	763	779	770	772	778	765	776
2.37	767	773	777	766	780	766	772	775	764	779	770	773	777	763	779	770	772	778	765	777
2.38	768	774	777	766	780	766	773	775	765	779	770	774	777	764	780	771	773	779	766	777
2.39	768	774	778	767	780	767	773	776	765	779	771	774	777	765	780	771	773	779	766	777
2.40	769	775	778	767	781	767	774	776	766	780	771	774	778	765	780	772	774	779	767	778
2.41	769	775	779	768	781	768	774	777	766	780	771	775	778	766	781	772	774	780	767	778

AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
2.42	770	775	779	768	781	768	775	777	767	780	772	775	778	766	781	773	774	780	768	779
2.43	770	776	779	769	782	769	775	777	767	781	772	776	779	767	781	773	775	780	769	779
2.44	771	776	780	769	782	770	775	778	768	781	773	776	779	767	782	774	775	781	769	779
2.45	772	777	780	770	782	770	776	778	769	781	773	777	780	768	782	774	776	781	770	780
2.46	772	777	780	770	783	771	776	779	769	782	774	777	780	769	782	775	776	782	770	780
2.47	773	778	781	771	783	771	777	779	770	782	774	777	780	769	783	775	777	782	771	780
2.48	773	778	781	772	783	772	777	779	770	782	775	778	781	770	783	775	777	782	771	781
2.49	774	778	781	772	783	772	778	780	771	783	775	778	781	770	783	776	778	783	772	781
2.50	774	779	782	773	784	773	778	780	771	783	776	779	781	771	783	776	778	783	772	782
2.51	775	779	782	773	784	773	779	781	772	784	776	779	782	772	784	777	778	783	773	782
2.52	775	780	783	774	784	774	779	781	773	784	777	780	782	772	784	777	779	784	773	782
2.53	776	780	783	774	785	774	779	781	773	784	777	780	783	773	784	778	779	784	774	783
2.54	776	781	783	775	785	775	780	782	774	785	778	780	783	773	785	778	780	784	775	783
2.55	777	781	784	775	785	776	780	782	774	785	778	781	783	774	785	779	780	785	775	783
2.56	777	781	784	776	786	776	781	783	775	785	779	781	784	774	785	779	781	785	776	784
2.57	778	782	784	777	786	777	781	783	775	786	779	782	784	775	786	780	781	785	776	784
2.58	778	782	785	777	786	777	782	783	776	786	780	782	784	776	786	780	781	786	777	785
2.59	779	783	785	778	787	778	782	784	777	786	780	783	785	776	786	781	782	786	777	785
2.60	779	783	785	778	787	778	782	784	777	787	781	783	785	777	787	781	782	786	778	785
2.61	780	783	786	779	787	779	783	785	778	787	781	783	786	777	787	782	783	787	778	786
2.62	780	784	786	779	788	779	783	785	778	787	782	784	786	778	787	782	783	787	779	786
2.63	781	784	787	780	788	780	784	785	779	788	782	784	786	778	788	783	784	787	780	786
2.64	781	785	787	780	788	780	784	786	779	788	783	785	787	779	788	783	784	788	780	787
2.65	782	785	787	781	789	781	785	786	780	788	783	785	787	780	788	783	785	788	781	787
2.66	782	786	788	781	789	782	785	787	781	789	784	786	787	780	789	784	785	788	781	787
2.67	783	786	788	782	789	782	786	787	781	789	784	786	788	781	789	784	785	789	782	788
2.68	783	786	788	783	790	783	786	787	782	789	785	786	788	781	789	785	786	789	782	788
2.69	784	787	789	783	790	783	786	788	782	790	785	787	788	782	790	785	786	789	783	789
2.70	784	787	789	784	790	784	787	788	783	790	786	787	789	783	790	786	787	790	783	789
2.71	785	788	789	784	791	784	787	789	783	790	786	788	789	783	790	786	787	790	784	789
2.72	785	788	790	785	791	785	788	789	784	791	786	788	790	784	791	787	788	790	785	790
2.73	786	789	790	785	791	785	788	789	785	791	787	789	790	784	791	787	788	791	785	790
2.74	787	789	791	786	792	786	789	790	785	791	787	789	790	785	791	788	789	791	786	790
2.75	787	789	791	786	792	786	789	790	786	792	788	789	791	785	792	788	789	791	786	791
2.76	788	790	791	787	792	787	789	791	786	792	788	790	791	786	792	789	789	792	787	791
2.77	788	790	792	787	793	788	790	791	787	792	789	790	791	787	792	789	790	792	787	792
2.78	789	791	792	788	793	788	790	791	787	793	789	791	792	787	793	790	790	792	788	792
2.79	789	791	792	789	793	789	791	792	788	793	790	791	792	788	793	790	791	793	788	792
2.80	790	792	793	789	794	789	791	792	789	793	790	791	793	788	793	791	791	793	789	793

Table 2, continued

AVERAGE STANDARD SCORE	GENERAL ED					SPECIAL ED					CHAPTER 1					VOC ED				
Domain	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V	I	II	III	IV	V
2.81	790	792	793	790	794	790	792	792	789	794	791	792	793	789	794	791	792	793	790	793
2.82	791	792	793	790	794	790	792	793	790	794	791	792	793	790	794	792	792	794	790	793
2.83	791	793	794	791	794	791	793	793	790	794	792	793	794	790	794	792	793	794	791	794
2.84	792	793	794	791	795	791	793	794	791	795	792	793	794	791	795	792	793	795	791	794
2.85	792	794	795	792	795	792	793	794	791	795	793	794	794	791	795	793	793	795	792	794
2.86	793	794	795	792	795	792	794	794	792	795	793	794	795	792	795	793	794	795	792	795
2.87	793	794	795	793	796	793	794	795	793	796	794	794	795	792	796	794	794	796	793	795
2.88	794	795	796	793	796	793	795	795	793	796	794	795	796	793	796	794	795	796	793	796
2.89	794	795	796	794	796	794	795	796	794	796	795	795	796	794	796	795	795	796	794	796
2.90	795	796	796	795	797	795	796	796	794	797	795	796	796	794	797	795	796	797	794	796
2.91	795	796	797	795	797	795	796	796	795	797	796	796	797	795	797	796	796	797	795	797
2.92	796	797	797	796	797	796	796	797	795	797	796	797	797	795	797	796	796	797	796	797
2.93	796	797	797	796	798	796	797	797	796	798	797	797	797	796	798	797	797	798	796	797
2.94	797	797	798	797	798	797	797	798	797	798	797	797	798	797	798	797	797	798	797	798
2.95	797	798	798	797	798	797	798	798	797	798	798	798	798	797	798	798	798	798	797	798
2.96	798	798	799	798	799	798	798	798	798	799	798	798	799	798	799	798	798	799	798	799
2.97	798	799	799	798	799	798	799	799	798	799	799	799	799	798	799	799	799	799	798	799
2.98	799	799	799	799	799	799	799	799	799	799	799	799	799	799	799	799	799	799	799	799
2.99	799	800	800	799	800	799	800	800	799	800	800	800	800	799	800	800	800	800	799	800
3.00	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800

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Table 3a. Component Points and Weights by Domain for General Education

		Points Out of 75%	Percent Weight
Domain I	Data Sources	130/150	.65
	Principal Rating	20/150	.10
	Consensus Rating	--	.25
	Sum	150	1.00
Domain II	Data Sources	330/350	.71
	Principal Rating	20/350	.04
	Consensus Rating	--	.25
	Sum	350	1.00
Domain III	Data Sources	130/150	.65
	Principal Rating	20/150	.10
	Consensus Rating	--	.25
	Sum	150	1.00
Domain IV	Data Sources	210/250	.63
	Principal Rating	40/250	.12
	Consensus Rating	--	.25
	Sum	250	1.00
Domain V	Data Sources	80/100	.80
	Principal Rating	20/100	.20
	Sum	100	1.00

NOTE: No consensus rating is made in Domain V.

Table 3b. Component Points and Weights by Domain for Special Education and Chapter 1/ESL/VIP

		Points Out of Total	Percent Weight
Domain I	Data Sources	130/150	.65
	Principal Rating	20/150	.10
	Consensus Rating	--	.25
	Sum	150	1.00
Domain II	Data Sources	316/350	.68
	Principal Rating	34/350	.07
	Consensus Rating	--	.25
	Sum	350	1.00
Domain III	Data Sources	126/150	.63
	Principal Rating	24/150	.12
	Consensus Rating	--	.25
	Sum	150	1.00
Domain IV	Data Sources	192/250	.58
	Principal Rating	58/250	.17
	Consensus Rating	--	.25
	Sum	250	1.00
Domain V*	Data Sources	75/100	.75
	Principal Rating	25/100	.25
	Sum	100	1.00

*NOTE: No consensus rating is made in Domain V.

Table 3c. Component Points and Weights by Domain for Vocational Education

		Points Out of Total	Percent Weight
Domain I	Data Sources	130/150	.65
	Principal Rating	20/150	.10
	Consensus Rating	--	.25
	Sum	150	1.00
Domain II	Data Sources	330/350	.71
	Principal Rating	20/350	.04
	Consensus Rating	--	.25
	Sum	350	1.00
Domain III	Data Sources	130/150	.65
	Principal Rating	20/150	.10
	Consensus Rating	--	.25
	Sum	150	1.00
Domain IV	Data Sources	220/250	.66
	Principal Rating	30/250	.09
	Consensus Rating	--	.25
	Sum	250	1.00
Domain V*	Data Sources	80/100	.80
	Principal Rating	20/100	.20
	Sum	100	1.00

*NOTE: No consensus rating is made in Domain V.

Table 4. Calculation of ACD Cutoff Scores for 1985 - 86

Level II

Domain	(A) 84-85 adjusted cutoff	(B) Equivalent 85-86 Score	(C) 85-86 Domain Weight	(D) B X C
Planning	7.400	583	.15	87.45
Teaching Strategies	5.180	575	.35	201.25
Evaluation	5.426	579	.15	86.85
Classroom Management	5.674	580	.25	145.00
Leadership	5.674	585	.10	58.50
Level II ACD Cutoff Total Score				579.05
			Cutoff	579

Level III

Domain	(A) 84-85 Adjusted Cutoff	(B) Equivalent 85-86 Score	(C) 85-86 Domain Weight	(D) B X C
Planning	7.600	650	.15	97.50
Teaching Strategies	5.580	682	.35	238.70
Evaluation	6.026	688	.15	103.20
Classroom Management	6.074	681	.25	170.25
Leadership	6.274	687	.10	68.70
Level III ACD Cutoff on Total Score				678.35
			Cutoff	678

Table 5. List of Scores Used in Each Teacher Evaluation System by Instrument.

OBSERVATION

General Education	Vocational Education	Special Education	Chapter 1/ ESL/VIP
T101	T130	T101	T101
T102	T102	T102	T102
T103	T131	T103	T103
T104	T132	T104	T104
T105	T133	T105	T105
T106	T134	T106	T106
T107	T135	T107	T107
T108	T136	T108	T108
T109	T137	T109	T109
T110	T138	T110	T110
T111	T139	T111	T111
T112	T112	T112	T112
T113	T113	T113	T113
T114	T114	T114	T114
T115	T115	T115	T115
T116	T116	T116	T116
T117	T117	T117	T117
T118	T118	T140	T140
T119	T119	T141	T141
T121	T121	T143	T143
T122	T122	T144	T144
T123	T123	T123	T123
T124	T124	T145	T145
T125	T125	T146	T146
T126	T126	T126	T126
T127	T127	T127	T127
--	T128	--	--
--	T129	--	--

Table 5, continued

DIALOGUE

General Education	Vocational Education	Special Education	Chapter 1/ ESL/VIP
T201	T216	T212	T201
T202	T217	T213	T202
T203	T218	T214	T203
--	--	T215	--
T204	T204	T204	T204
T205	T205	T205	T205
T206	T206	T206	T206
T207	T207	T207	T207
T208	T208	T208	T208
T209	T209	T209	T209
T211	T211	T211	T211
--	T219	--	--

PEER QUESTIONNAIRE

General Education	Vocational Education	Special Education	Chapter 1/ ESL/VIP
T301	T301	T302	T302
--	--	T303	T303

Table 5, continued

PRINCIPAL QUESTIONNAIRE

General Education	Vocational Education	Special Education	Chapter 1/ ESL/VIP
T401	T401	T416	T401
T402	T402	T417	T402
T403	T403	T418	T403
--	--	T419	--
T404	T404	T420	T420
T405	T405	T421	T421
T406	T406	T422	T422
T407	T407	T423	T423
T408	T408	T424	T424
T409	T409	T425	T425
T411	T431	T426	T426
T412	T432	T427	T427
T413	T433	T428	T428
T414	T434	T414	T414
T415	T435	T429	T429
--	T436	T430	T430
T437(s)*	T437(s)	T437(s)	T437(s)
T438(s)	T438(s)	T438(s)	T438(s)
T439(s)	T439(s)	T439(s)	T439(s)

*(s) denotes an item used for screening purposes only.

Table 5, continued

STUDENT QUESTIONNAIRE
ELEMENTARY

General Education	Vocational Education	Special Education	Chapter 1/ ESL/VIP
T501	--	T510	T510
T502	--	T511	T511
T503	--	T512	T512
T504	--	T513	T513
T505	--	T514	T514
T507	--	T516	T516
T508	--	T517	T517
T509	--	T518	T518

STUDENT QUESTIONNAIRE
SECONDARY

General Education	Vocational Education	Special Education	Chapter 1/ ESL/VIP
--	T610	--	--
T601	T601	T615	T615
T602	T602	T616	T616
T603	T603	T617	T617
T604	T604	T618	T618
T605	T605	T619	T619
T607	T611	T621	T621
T608	T612	T622	T622
T609	T613	T623	T623
--	T614	--	--

K - 2 QUESTIONNAIRE

General Education	Vocational Education	Special Education	Chapter 1/ ESL/VIP
T701	--	--	--
T702	--	--	--
T703	--	--	--

Table 5, continued

PROFESSIONAL SKILLS TEST

General Education	Vocational Education	Special Education	Chapter 1/ ESL/VIP
T801	T801	T801	T801
T802	T802	T802	T802
T803	T803	T803	T803
T804	T804	T804	T804

PROFESSIONAL DEVELOPMENT AND LEADERSHIP

General Education	Vocational Education	Special Education	Chapter 1/ ESL/VIP
T901	T906	T903	T903
T902	T907	T904	T904
--	--	T905	T905
--	T908	--	--

APPENDIX B

BUBBLE WEIGHTS AND SCORE INDICATORS FOR THE OBSERVATION INSTRUMENT

SECTION 1

OBSERVATION BEGAN AT: _____

OBSERVATION SCHEDULED TO END AT: _____

OBSERVATION ENDED AT: _____

TEACHER BEHAVIOR BUBBLE WEIGHTS:

			Teacher Behavior	Positive Affect	Student Initiates/Responds
TASK	Overview	1			
	Directions	1			
	Examples	2			
	Distinguishes Steps (II A)	2			
CONTENT	Definition/Examples	1			
	Explanations/Rules/Attributes	1			
	Provides Context	2			
	Uses Learner Remarks	3			← II D
REVIEW	Definition/Examples	1			
	Explanations/Rules/Attributes	1			
	Provides Context	2			
	Uses Learner Remarks (II C)	3			
PRACTICE	Initial Practice	2			
	Independent Practice	1			
	Varied Activities/Materials	2			
	Group Practice	1			
MONITORS	Requests Affirmation	1			
	Requests Infor/Explanation	2			
	Requests Comparison/Contrast	3			
	Requests Evaluation (II B)	3			
	Requests Questions	1			
	Monitors Individual/Group	1			
FEEDBACK	Recognizes Response	1			
	Encourages Response	2			
	Ignores Response (III B)	1			
	Recognizes Correct Response	2			
	Corrective Statement	3			
	Corrected Assignments/Tests	1			
	Reports Student Status	3			
	Provides Recommendation	3			
OTHER	Classroom Procedure (III C → 1)				
	Presentation/Other				
	Teacher Off Task (III C → 1)				
	Greeting/Socialization (III B ←)				

TIME ELAPSED BETWEEN THE TIME THE INTERRUPTION ENDED AND THE CLASS WAS BACK ON TASK IN MINUTES (M) AND SECONDS (S). IV C

M S S M S S M S S

TEACHER INVOLVES STUDENTS WHO DO NOT VOLUNTEER.

YES ○ NO ○

II D

TEACHER CONTROL

CAUSE						TEACHER ACTION	RESULT					
STUDENT BEHAVIOR							STUDENT BEHAVIOR					
OFF TASK			DISRUPTIVE					OFF TASK		DISRUPTIVE		
INDIVIDUAL	SMALL GROUP	LARGE GROUP	INDIVIDUAL	SMALL GROUP	LARGE GROUP		COMPLIANCE	INDIVIDUAL	SMALL GROUP	INDIVIDUAL	SMALL GROUP	LARGE GROUP

SECTION 2

DO NOT WRITE OUTSIDE BOXED IN AREA

COMMENTS

1. How many students are:

II D

IN CLASS		OFF TASK	
0	0	0	0
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9

2. During most of the observation period, the teaching method was

- Lecture ○
- Discussion/Interaction ○ NOT SCORED
- Independent Work ○

3. During most of the observation period, the class was working:

- As a total group ○
- As subgroups ○ NOT SCORED
- As individuals ○

4. During the observation period, did students express/exhibit lack of understanding?

II A

None	○	1.00
One	○	0.67
Few (2-5)	○	0.33
Many (more than 5)	○	0.00

BUBBLE WEIGHTS

5. Did the teacher respond to this by reteaching?

II B

- Yes ○
- No ○ NOT SCORED
- N/A ○

6. Did the teacher present correct information?

II A

- Yes ○
- No ○
- N/A ○

7. Were there any safety/sanitation violations?

IV C

- Yes ○ VOCATIONAL
- No ○ EDUCATION
- N/A ○ ONLY

8. Did the teacher provide reasonable sanctions for inappropriate behavior?

IV A

- Yes ○
- No ○
- N/A ○

SECTION 3

PLANNING/STRATEGI MANAGEMENT	TEACHER PREPARATION I B	① ② ③ ④ ⑤ ⑥
	STUDENT PREPARATION II D	① ② ③ ④ ⑤ ⑥
	TEACHER ATTENTION TO NEEDS IN ORDER OF IMPORTANCE II B	① ② ③ ④ ⑤ ⑥
	TEACHER PACING OF ACTIVITIES TO ACCOMMODATE LEARNER UNDERSTANDING II B	① ② ③ ④ ⑤ ⑥
	TEACHER FOSTERS HIGHER LEVEL THINKING SKILLS I A	① ② ③ ④ ⑤ ⑥
USE OF RESOURCES	ACCESSIBILITY OF MATERIALS/MEDIA TO STUDENTS IV C	① ② ③ ④ ⑤ ⑥
	EFFECTIVE USE OF MATERIALS/MEDIA BY TEACHER IV C	① ② ③ ④ ⑤ ⑥
	INTEGRATION OF RESOURCES WITH TEACHING IV C	① ② ③ ④ ⑤ ⑥
	EFFECTIVE USE OF SUPPLEMENTARY MATERIALS FOR STUDENTS IV C	① ② ③ ④ ⑤ ⑥
	MAKES EFFECTIVE USE OF HUMAN RESOURCES IV C	① ② ③ ④ ⑤ ⑥
	MAKES EFFECTIVE USE OF TIME IV C	① ② ③ ④ ⑤ ⑥
FACILITIES	MAKES EFFECTIVE USE OF AVAILABLE FURNITURE/EQUIPMENT IV C	① ② ③ ④ ⑤ ⑥
	MAKES EFFECTIVE USE OF AVAILABLE DISPLAY SPACE IV C	① ② ③ ④ ⑤ ⑥
TEACHER COMMUNICATION	SPEAKS CLEARLY VI A	① ② ③ ④ ⑤ ⑥
	USES VOCABULARY APPROPRIATE TO THE AUDIENCE VI A	① ② ③ ④ ⑤ ⑥
	ORGANIZES INFORMATION VI A	① ② ③ ④ ⑤ ⑥
	USES GRAMMAR CORRECTLY VI A	① ② ③ ④ ⑤ ⑥
	PROVIDES AN APPROPRIATE LANGUAGE MODEL FOR LEARNER II A	① ② ③ ④ ⑤ ⑥
VOC EDUC	INTEGRATES STUDENT ORGANIZATION INTO CLASS I B	① ② ③ ④ ⑤ ⑥
	RELATES LESSON TO JOB SITUATIONS I B	① ② ③ ④ ⑤ ⑥
FAVOR-ITISM	DID THE TEACHER SHOW FAVORITISM TO STUDENTS BASED ON: IV B	
	IF YES, SPECIFY:	

		Sex	Race
92	Academic Interaction	Yes ○ No ○	Yes ○ No ○
	Discipline	Yes ○ No ○	Yes ○ No ○
71	Positive Affect	Yes ○ No ○	Yes ○ No ○

APPENDIX C

PATTERN SCORES FROM THE OBSERVATION INSTRUMENT

PATTERN SCORES FROM THE OBSERVATION INSTRUMENT

A few of the scores from the observation instrument are based on what we call "pattern scores." That is, whole combinations or patterns of bubbles or grids marked by the evaluator in a 4-minute scan are assigned specific values, and these values are averaged to yield your raw score. (You may find it helpful to refer to the observation booklet while you review this discussion.) The patterns for these scores may be represented in table format, so that finding your score is a simple matter of locating a number in the appropriate table.

The other pattern scores are: T104, T113, T119, T132, and T141. T104 relates to procedural questions. T113 and T132 relate to academic questions (T132 is used only for vocational education teachers, because it has a different score weight). T119 and T141 relate to the Teacher Control grid for Cause and Result (T141 is used only for special education and Chapter 1/ESL/VIP, teachers, because it has different score weight.)

PROCEDURAL QUESTIONS

First let's define all the parts of the equation. The divisor (symbol DV) used equals the sum of the number of procedural questions coded by the evaluators, represented by PR, and the number of academic questions coded by the evaluators, represented by AC. If the divisor equals zero, the score is considered as being missing data. A frequency (symbol FR) is computed by multiplying a predetermined frequency rate by the number of scans completed by your evaluators. The frequency rate for procedural questions is .11. If the number of procedural questions is less than the computed frequency, an average score of 100 is given; otherwise the average score is computed by subtracting the computed frequency from the number of procedural questions and then dividing that difference by the divisor. In order to reflect the positive nature of the score, the score is subtracted from 1 and multiplied by 100.

These relationships may be represented as follows:

DV = # of procedural questions + # of academic questions

PR = # of procedural questions

FR = .11 x # of scans coded by evaluators

Your raw score would then be calculated as:

100 x [1 - ((PR - FR)/DV)]

Now let's try that with some numbers. Imagine that, during a single scan, your evaluator coded 6 procedural questions and 2 academic questions. Your result <u>for this scan</u> would be the following:

DV = 6 + 2 = 8;
PR = 6;
FR = .11 x 1 = .11;

or

= 100 x [1 - ((6 - .11)/8)]
= 100 x [1 - (5.89/8)]
= 100 x [1 - .7363]
= 100 x .2637
= 26.37

This same process would have to be repeated for every scan that the evaluators completed in your classroom, and then the average result across all scans would be computed to yield your final raw score.

<u>ACADEMIC QUESTIONS</u>

The divisor (symbol DV) used equals the sum of the number of academic questions coded by the evaluators, represented by AC, and the number of procedural questions coded by the evaluators, represented by PR. If the number of academic questions equals zero or if the divisor equals zero, the score is considered as being missing data. The average score is the proportion of academic questions to the sum of academic and procedural question.

These relationships may be represented as follows:

DV = # of academic questions + # of procedural questions

AC = # of academic questions

Your raw score would then be calculated as:

100 x (AC/DV)

Now let's try that with some numbers. Imagine that, during a single scan, your evaluator coded 5 academic questions and 2 procedural questions. Your result <u>for this scan</u> would be the following:

DV = 5 + 2 = 7;
AC = 5;

or

= 100 x (5/7)
= 100 x .7143
= 71.43

This same process would have to be repeated for every scan that the evaluators completed in your classroom, and then the average result across all scans would be computed to yield your final raw score.

A pair of grids are contained in a box in Section 1 of the classroom observation instrument, under the heading of "Teacher Control." The left side is used to code off- task or disruptive behaviors occurring during the 4-minute scan, while the right side is used to indicate the outcome of the off task and/or disruptive behaviors coded on the left. Each bubble in the grids carries a specific weight (see Appendix B). Everyone starts out with a perfect score of 100%; the points accumulated through marks filled out in these grids are, in essence, subtracted from 100%. Thus the bubble weights are designed to reflect varying degrees of problems in teacher control.

For example, most practitioners would agree that the presence of a large group of disruptive students in the classroom is more of a problem than an individual who is off task. As determined by the Certification Commission, more points are lost because of large groups of disruptive students who continue to be disruptive over time, than for an individual who is sporadically off task but complies with teacher requests to return to work. This conceptual framework should help you to see how the following equations work.

First let's define all the parts of these equations. The divisor (symbol DV) used equals 120 (the maximum number of bubbles that could be marked in a 4-minute scan) times the number of scans completed by your evaluators. The "Cause" side of the grid, represented here by CS, is the sum of the bubbles in each column multiplied by the appropriate weight. The "Result" side of the grid, represented as R, likewise is the sum of bubbles in each column times their weights. When compliance, or CM, is the result coded by an evaluator, points are added back to your score. These relationships may be represented as follows:

CS = (A x 1) + (B x 2) + (C x 3) +
(D x 3) + (E x 4) + (F x 5);

R = (A x 1) + (B x 2) + (C x 3) +
(D x 3) + (E x 4) + (F x 5);

CM = (G x 1)

where A = the number of bubbles marked under "individual off task;"
B = the number of bubbles marked under "small group off task;"
C = the number of bubbles marked under "large group off task;"
D = the number of bubbles marked under "individual disruptive;"
E = the number of bubbles marked under "small group disruptive;"
F = the number of bubbles marked under "large group disruptive;"
and, G = the number of bubbles marked under "compliance."

Your raw score would then be calculated as:

$$100 \times [((DV - (CS + R)) + CM)/DV]$$

Now let's try that with some numbers. Imagine that, during a single scan, your evaluator coded: one individual who was off task, but who complied after you took some action; and, a small group of students who were off task, and remained off task at the end of the scan. Your result for this scan would be the following:

$$DV = 120 \times 1 = 120;$$

$$CS = (1 \times 1) + (1 \times 2) + (0 \times 3) + (0 \times 3) + (0 \times 4) + (0 \times 5) = 3;$$

$$R = (0 \times 1) + (1 \times 2) + (0 \times 3) + (0 \times 3) + (0 \times 4) + (0 \times 5) = 2;$$

$$CM = (1 \times 1) = 1;$$

or, $$= 100 \times [((120 - (3 + 2)) + 1)/120]$$

$$= 100 \times ((115 + 1)/120)$$

$$= 100 \times (116/120)$$

$$= 96.00$$

This same process would have to be repeated for every scan that the evaluators completed in your classroom, and then the average result across all scans would be computed to yield your final raw score. If the final raw score is 100, then the following formula is applied:

$$100 - \frac{G}{S}$$

Where G = the number of bubbles marked under "compliance;"

S = the number of scans.

You may have noticed that, while points are added back in for instances of compliance, nothing was said about additional credit being given for the actions which teachers may have taken to maintain control of the classroom. Although evaluators do code any instances of teacher actions which they see during the 4-minute scans, equal credit is given to the teacher whether or not compliance occurs as a result of a directly observable teacher action. This is because in some cases ignoring misbehavior is an effective strategy for managing classroom behavior.

Appendix D

LETTER EXPLAINING REVISED PRINCIPAL QUESTIONNAIRE

TENNESSEE
STATE DEPARTMENT OF EDUCATION
100 CORDELL HULL BUILDING
NASHVILLE 37219

Robert L. McElrath
COMMISSIONER

January 16, 1986

Dear Principal:

The State Department of Education has been aware of a concern that was brought to our attention by school principals. The concern is associated with the conversion process used with the Principal's Questionnaire in the Career Ladder Evaluation System for teachers. As the 1985-86 evaluation year began, it became apparent that principals wanted to know "up front" the conversion process used with the questionnaire data from principals.

I am pleased to let you know that on Friday, January 10, the State Certification Commission approved the information enclosed with this letter. The clarification of the conversion process will be presented to the State Board of Education on Thursday, January 23, for official action. We are sending this draft information to you at this time because we feel it is imperative that principals know as soon as possible about the proposed clarification of the conversion process. A similar process is proposed for the superordinate questionnaire used in the Administrator/Supervisor Evaluation System.

The questions remain the same. The rating scale has been expanded from five(5) points to ten(10) points. If you have teachers being evaluated for Career Level II or III this year, you will be asked to complete the questionnaire using the expanded scale. Any questionnaires already collected will be returned to principals by the evaluator on the "C" visit. At that time, the questionnaire will be distributed to and collected from the principal. The enclosed questionnaire is a sample for your review.

Please review the enclosed information. Area study council meetings will be held across the state to explain and answer questions about the clarification of the rating scale conversion process. A schedule of the statewide meetings is included with this information. If you have questions, please call your district office or the Career Ladder Office (615-741-7816) for further information.

We appreciate the input of school principals and send this clarification recommendation to you in advance of its approval by the State Board of Education in response to your concerns. Thank you for helping us to improve the Career Ladder Program.

We look forward to seeing you at the study council meeting.

Sincerely,

Robert L. McElrath

Robert L. McElrath
Commissioner

RLM:cfj

Enclosures

Clarification of the Principal Questionnaire Conversion Process

The questions on the Principal Questionnaire remain the same. The rating scale conversion is being clarified. The domains and the indicators measured by them are on pages 82-83 of the Teacher Orientation Manual. Rather than using the 5-point scale, principals are asked to respond using the ten-point scale shown below. By using the ten-point conversion scale, along with the weight assigned to each indicator, a principal can determine the Career Ladder score of each teacher, as derived from the Principal's Questionnaire. Shown here is the conversion for each assigned response. The weights for general education teachers are found on page 56, special education teachers on pages 116 -117, and vocational education teachers on page 128 of the Teacher Orientation Manual.

Career Ladder Status	Rating Score	200-800 Scale Conversion
III	3+	800
	3	750
	3-	725
II	2+	699
	2	650
	2-	625
I	1+	599
	1	450
	1-	300
Below Level I	0	200

Scoring Example

The following is an example of the process for obtaining a scale score for a particular Domain of Competence in which there is only one question for each indicator. This process is similar to one used by many teachers in determining student grades through weighted averages. A teacher typically assigns weights to quizzes, tests, and homework. The scores are then multiplied by the weights, added, and averaged.

Example 1: Planning Domain - General Education

Competencies/ Indicators		Principal's Assessment	Conversion Scale		WT		WT Scale	Final Scale Score
Q1	IA	3	750	x	10	=	7500	
Q2	IB	2	650	x	6	=	3900	
Q3	IC	3-	725	x	4	=	2900	
Totals					20		14300	715 [14300÷20]

TENNESSEE CAREER LADDER
TEACHER SYSTEM
PRINCIPAL QUESTIONNAIRE

CANDIDATE NAME _____ **Soc. Sec. #** _____

SCHOOL NAME _____

Directions: *For each question, place an "X" in the box which best describes your assessment of the teacher for placement on the Career Ladder. Rating a teacher should not be dependent on the level for which the teacher is applying. For example, a teacher applying for Career Level II may receive a Career Level III score. The rating should be made on the teacher's performance, not on the application level. At the end of each question, you will find reference to the domain and indicator which are measured by that question.*

	Level III			Level II			Level I			Below I	Don't Know
	3+	3	3-	2+	2	2-	1+	1	1-	0	
1. Establishes appropriate instructional goals and related objectives consistent with the curriculum (IA)											
2. Prepares instructional plans and materials incorporating principles of effective instruction (IB)											
3. Creates, selects or modifies instructional plans and materials to accommodate learner instructional levels (IC)											
4. Provides a clear description of the learning task and its content (IIA)											
5. Monitors learner understanding and reteaches as necessary (IIB)											
6. Provides learners appropriate practice and review (IIC)											
7. Establishes and maintains learner involvement in the learning task (IID)											
8. Uses information about learner performance to improve the instructional process (IIIA)											
9. Reports learner status and progress to learners and their parents (IIIB)											
10. Establishes and maintains appropriate learner behavior (IVA)											
11. Establishes and maintains a classroom climate conducive to learning (IVB)											
12. Makes effective use of classroom resources (IVC)											
13. Improves professional skills and knowledge (VA)											

-Over-

	Level III			Level II			Level I			Below I	Don't Know
	3+	3	3-	2+	2	2-	1+	1	1-	0	
14. Takes a leadership role in improving education (VB)											
15. Performs professional responsibilities efficiently (VC)											
16. Writes clearly and correctly (VIA)											
17. Communicates oral information effectively (IIA)											
18. Reads professionally relevant literature/materials with comprehension (VIB)											
19. Improves learners' academic achievement in relevant subject areas (Field Test Item Only) (IIIC)											
20. Improves learners attitudes toward learning (Field Test Item Only) (IIIC)											
21. Serves as a liaison for home, school and community (Vocational Education Only) (VD)											
22. Integrates and facilitates individual education programs (Special Education Teachers required by law to do IEPs) (IID)											
23. Communicates effectively with professionals, paraprofessionals, and parents (Special Populations Only) (VD)											